



Panasonic[®]

Operating Instructions

Digital Progressive

Plasma Television

Model No. **TH-37PD25**
TH-42PD25



For assistance, please call : 1-888-VIEW-PTV(843-9788)
or send e-mail to : consumerproducts@panasonic.com
or visit us at www.panasonic.com

(U.S.A.)

For assistance, please call : 787-750-4300
or visit us at www.panasonic.com

(Puerto Rico)

Before connecting, operating or adjusting this product, please read these instructions completely.
Please keep this manual for future reference.



WARNING

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**



WARNING: To reduce the risk of electric shock, do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not place liquid containers (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)

WARNING: AS WITH ANY SMALL OBJECT, SD CARDS CAN BE SWALLOWED BY YOUNG CHILDREN. DO NOT ALLOW CHILDREN TO HANDLE THE SD CARD.

WARNING: 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
2) Do not remove the grounding pin on the power plug. This apparatus is equipped with a three pin grounding-type power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.
Do not defeat the purpose of the grounding plug.

Note:

Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma Television.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.



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"Dolby" and the double-D symbols are trademarks of Dolby Laboratories.



HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.



: SD Logo is a trademark.



Manufactured under license from BBE Sound, Inc.

Licensed by BBE Sound, Inc. under USP4638258, 4482866, 5510752 and 5736897.

BBE and BBE symbol are registered trademarks of BBE Sound, Inc.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

U.S. Patents Nos. 4,631,603; 4,577,216; 4,819,098; 4,907,093; 6,381,747; and 6,516,132.

Important Safety Instructions

1) Read these instructions.

All the safety and operating instructions should be read before the appliance is operated.

2) Keep these instructions.

The safety and operating instructions should be retained for future reference.

3) Heed all warnings.

All warnings on the appliance and in the operating instructions should be adhered to.

4) Follow all instructions.

All operating and use instructions should be followed.

5) Do not use this apparatus near water.

For example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

6) Clean only with dry cloth.

Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Slots and Openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments / accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.

Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



13) Unplug this apparatus during lightning storms or when unused for long periods of time.

This will prevent damage to the product due to lightning and power-line surges.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15) To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.

Dear Panasonic Customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new Plasma TV.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

Retain your purchase receipt also, and record the model number and serial number of your set in the space provided on the back cover of these instructions.

Visit our Panasonic Web Site : www.panasonic.com

| | |
|--|----------------------|
| For assistance, please call : 1-888-VIEW-PTV(843-9788) or send e-mail to : consumerproducts@panasonic.com or visit us at www.panasonic.com | (U.S.A.) |
| For assistance, please call : 787-750-4300 or visit us at www.panasonic.com | (Puerto Rico) |

FCC STATEMENT

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC CAUTION:

To assure continued compliance and possible undesirable interference, the provided ferrite cores must be used when connecting this plasma television to video equipment; and maintain at least 40 cm spacing to other peripheral devices. Refer to instructions on pages 10, 12, 13, 17, 18.

Any changes or modifications to this TV not expressly approved by Matsushita Electric Corporation of America could result harmful interference and would void the user's authority to operate this device.

FCC Declaration of Conformity Model No. TH-37PD25, TH-42PD25

| | |
|--------------------|---|
| Responsible Party: | Matsushita Electric Corporation of America One Panasonic Way, Secaucus, NJ 07094 |
| Contact Source: | Panasonic Consumer Electronics Company 1-888-843-9788 email: consumerproducts@panasonic.com |

Trademark Credits

- VGA is a trademark of International Business Machines Corporation.
 - Macintosh is a registered trademark of Apple Computer, USA.
 - S-VGA is a registered trademark of the Video Electronics Standard Association.
- Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

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Safety Precautions

WARNING

Set up

Do not place the Plasma TV on sloped or unstable surfaces.

- The Plasma TV may fall off or tip over.

Do not place any objects on top of the Plasma TV.

- If water spills onto the Plasma TV or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Plasma TV, please consult an Authorized Service Center.

Do not cover the ventilation holes.

- Doing so may cause the Plasma TV to overheat, which can cause fire or damage to the Plasma TV.

If using the pedestal, leave a space of 3 ¹⁵/₁₆" (10 cm) or more at the top, left and right, 2 ³/₈" (6 cm) or more at the bottom, and 2 ³/₄" (7 cm) or more at the rear. If using some other setting-up method, leave a space of 3 ¹⁵/₁₆" (10 cm) or more at the top, bottom, left and right, and ³/₄" (1.9 cm) or more at the rear.

Avoid installing this product near electronic equipment that easily receives electromagnetic waves.

- It may cause interference in image, sound, etc. In particular, keep video equipment away from this product.

AC Power Supply Cord

The Plasma TV is designed to operate on 120 V AC, 50/60 Hz.

Securely insert the power cord plug as far as it will go.

- If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they should not be used.

Do not handle the power cord plug with wet hands.

- Doing so may cause electric shocks.

Do not do anything that might damage the power cable. When disconnecting the power cable, hold the plug, not the cable.

- Do not make any modifications, place heavy objects on, place near hot objects, heat, bend, twist or forcefully pull the power cable. Doing so may cause damage to the power cable which can cause fire or electric shock. If damage to the cable is suspected, have it repaired at an Authorized Service Center.

If the Plasma TV will not be used for a long period of time, unplug the power cord from the wall outlet.

If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odor is detected from the Plasma TV, unplug the power cord immediately.

- Continuous use of the TV under these conditions might cause fire or permanent damage to the unit. Have the TV evaluated at an Authorized Service Center. Services to the TV by any unauthorized personnel are strongly discouraged due to its high voltage dangerous nature.

If water or foreign objects get inside the Plasma TV, if the Plasma TV is dropped, or if the cabinet becomes damaged, disconnect the power cord plug immediately.

- A short may occur, which could cause fire. Contact an Authorized Service Center for any repairs that need to be made.

Safety Precautions

CAUTION

This Plasma TV is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability which could result in the possibility of injury.

(All of the following accessories are manufactured by Matsushita Electric Industrial Co., Ltd.)

- Pedestal (included) TY-ST42PA20
- Wall-hanging bracket (Vertical) TY-WK42PV3U, TY-WK42PV2W
- Wall-hanging bracket (Angled) TY-WK42PR2U
- Display stand TY-DP4201W

Always be sure to ask a qualified technician to carry out set-up.

When using the Plasma TV

Do not bring your hands, face or objects close to the ventilation holes of the Plasma TV.

- Top of the Plasma TV is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries can happen if any body parts are brought too close. Placing any object near the top of the TV could also result in heat damages to the object as well as to the TV if its ventilation holes are blocked.

Be sure to disconnect all cables before moving the Plasma TV.

- Moving the TV with its cables attached might damage the cables which, in turn, can cause fire or electric shock.

Disconnect the power plug from the wall outlet as a safety precaution before carrying out any cleaning.

- Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it from becoming dusty.

- Built-up dust on the power cord plug can increase humidity which might damage the insulation and cause fire. Unplug the cord from the wall outlet and clean it with a dry cloth.

This Plasma TV radiates infrared rays, therefore it may affect other infrared communication equipment.

Install your infrared sensor in a place away from direct or reflected light from your Plasma TV.

Cleaning and maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, soak a soft, lint-free cloth in a weak detergent solution and then wring the cloth to remove excess liquid. Use this cloth to wipe the surface of the display panel, then wipe it evenly with a dry cloth, of the same type, until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

- If the cabinet is particularly dirty, soak the cloth in a weak detergent solution and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the Plasma TV.
If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

Note:

Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma TV.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

Installation

Receiver Location

This unit is intended to be used with an optional stand or entertainment center. Consult your dealer for available options. Locate for comfortable viewing. Avoid placing where sunlight or other bright light (including reflections) will fall on the screen.

Use of some types of fluorescent lighting can reduce remote control transmitter range.

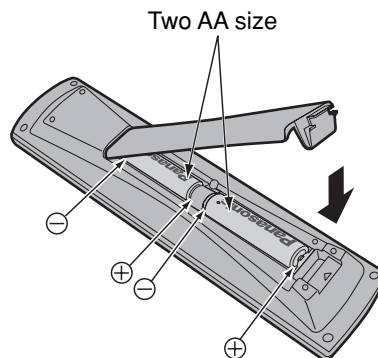
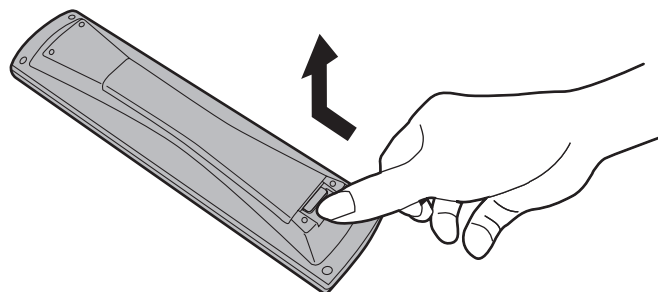
Adequate ventilation is essential to prevent internal component failure. Keep away from areas of excessive heat or moisture.

Optional External Equipment

The Video/Audio connection between components can be made with shielded video and audio cables. For best performance, video cables should utilize 75 ohm coaxial shielded wire. Cables are available from your dealer or electronic supply store. Before you purchase any cables, be sure you know what type of output and input connectors your various components require. Also determine the length of cable you will need.

Remote Control Battery Installation

1. Open the cover.
2. Install the batteries and replace the cover.
Note the correct polarity (+ and -).



Helpful Hints:

For frequent remote control users, replace old batteries with alkaline batteries for longer life.

Helpful Hints:

Whenever you remove the batteries, **you may need to reset the remote control infrared codes**. We recommend that you record the code on page 59, prior to setting up the remote control.

⚠ Precaution on battery use

Incorrect installation can cause battery leakage and corrosion that will damage the remote control transmitter.

Observe the following precautions:

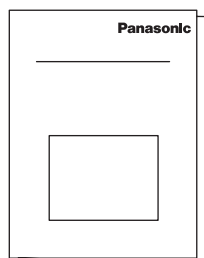
1. Batteries should always be replaced as a pair. Always use new batteries when replacing the old set.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (example: "Zinc Carbon" with "Alkaline").
4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.
5. Battery replacement is necessary when remote control acts sporadically or stops operating the TV set.

Accessories

Check that you have the Accessories and items shown



☐ Operating
Instruction book



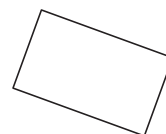
☐ Remote control
EUR7627Z10



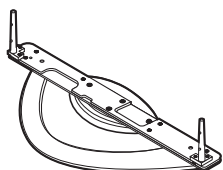
☐ Batteries for the remote
control
(AA Battery × 2)



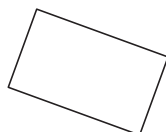
☐ Warranty card



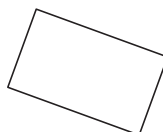
☐ Pedestal
TY-ST42PA20



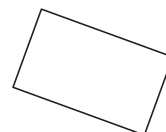
☐ Customer card



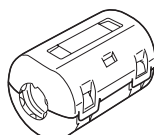
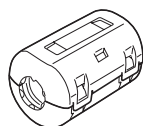
☐ Service
center list



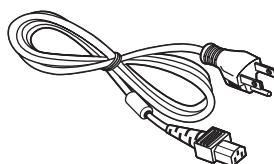
☐ Customer care
plan card



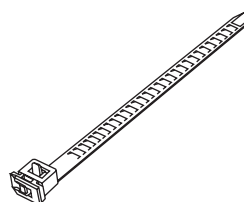
☐ Ferrite core
Small size × 6 Large size × 4



☐ AC cord

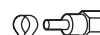
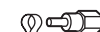


☐ Fixing band



☐ F-Type antenna
adapter
(for 3C-2V) (×2)

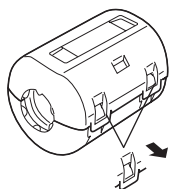
(for 5C-2V) (×2)



Attaching the ferrite core

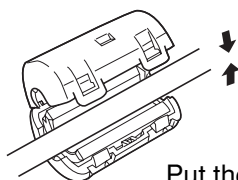
Be sure to choose the appropriate size of ferrite core (large or small) and the correct setting of the cable (winding or passing), as indicated by each connection diagram on the following pages (12, 13, 17, 18).

1



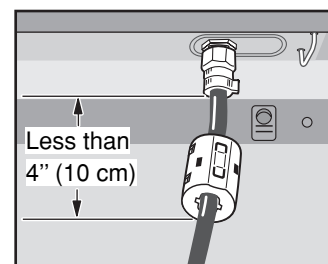
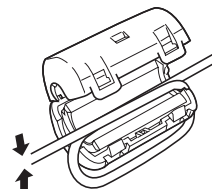
Pull back the
tabs (in two
places) to open.

2 (Large size)



Put the cable
and close.

(Small size)



Headphones / Earphones jack

VIDEO
R

Cable In

HDMI terminal
(see page 14)

AV terminals
(see pages 15, 16)

DIGITAL AUDIO OUT terminal
(see page 16)

Antenna terminals
(see pages 12, 13)

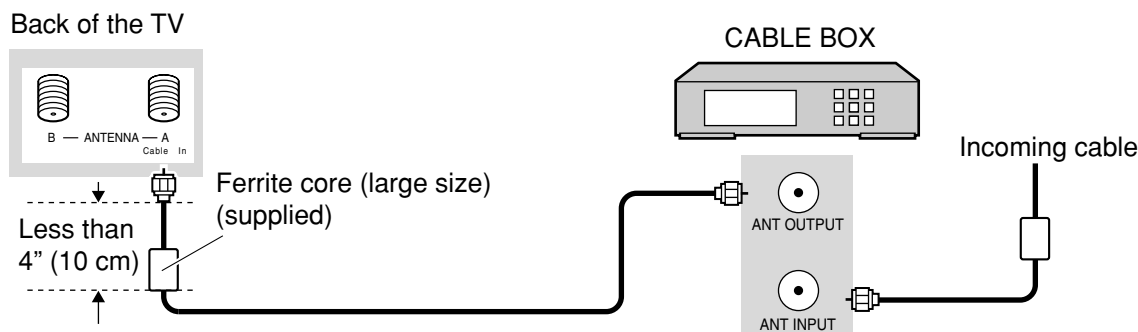
3

N

Ferrite

Cable Box Connection

- When you enjoy the cable TV programs only, connect the cable TV's cable to ANTENNA (A). When you enjoy both the terrestrial TV programs and the cable TV programs, **connect the cable TV's cable to ANTENNA (A), and the terrestrial antenna cable to ANTENNA (B).**
- Select the antenna mode in Input Setup (see page 22).

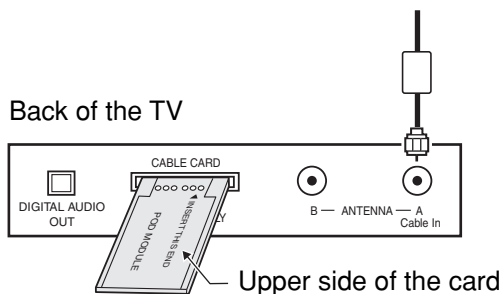


CableCARD Connection

CableCARD allows you to tune digital and high definition cable channels through the cable antenna. Consult your cable company on the availability of CableCARD.

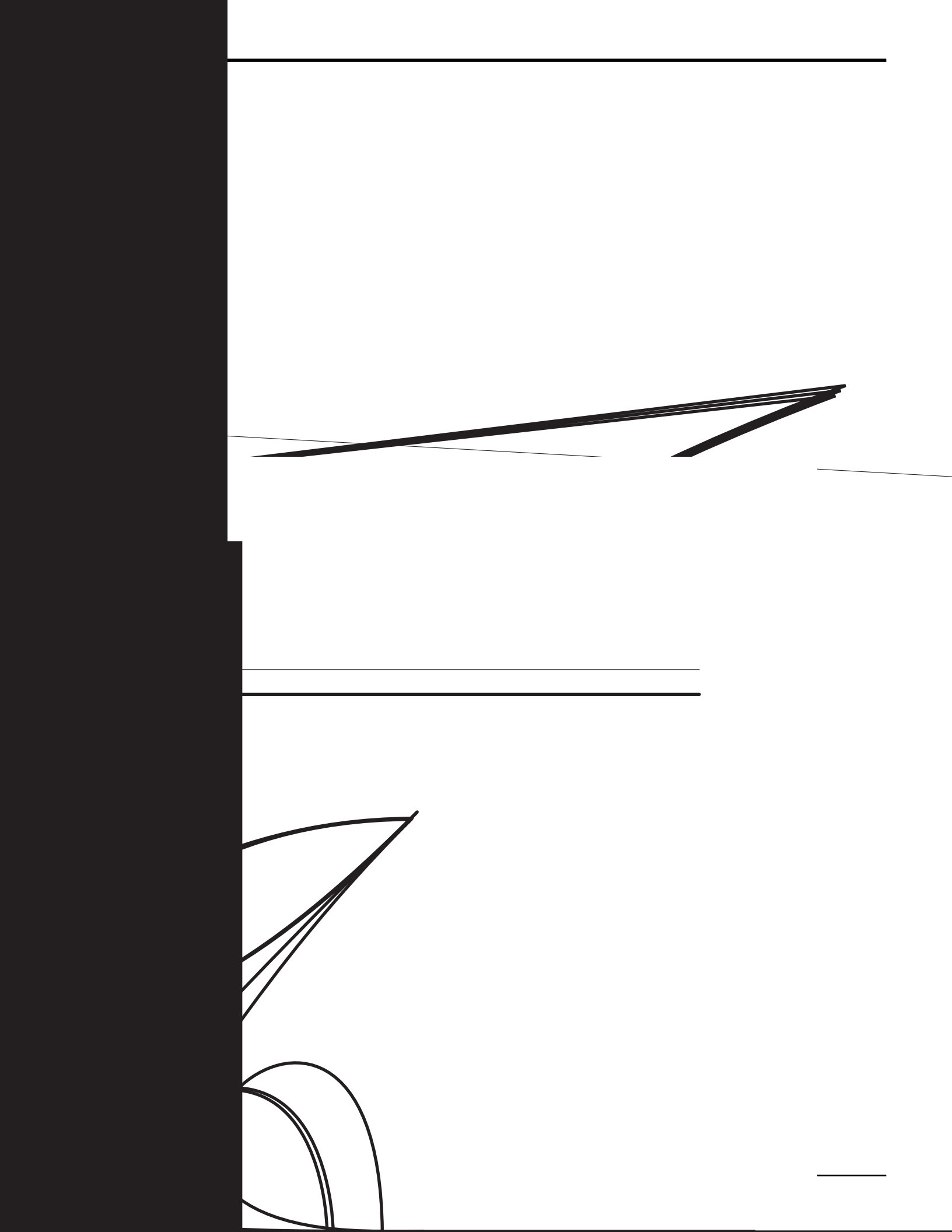
Procedure

1. Connect the cable antenna to ANTENNA (A).
2. Turn the TV on (see page 19).
3. Set the input mode to TV (see page 20).
4. Insert the CableCARD (as it's upper side facing to your side) into CABLE CARD slot on the back of the TV. Follow the messages displayed on the screen.



Notes:

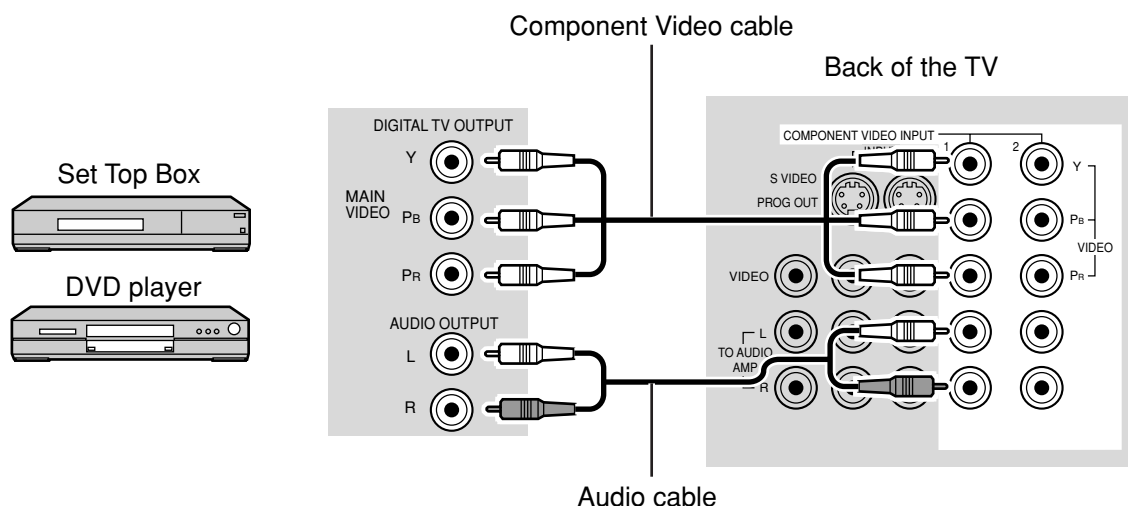
- If you experience keyboard or remote control function hang-up when using CableCARD, unplug the TV and plug it back on and try the controls again. If this condition still exists, please call Panasonic Customer Call Center for further instructions.
- Do not insert a PCMCIA card into CABLE CARD slot.



Digital TV - Set-Top Box (DTV-STB) or DVD Connection

This TV is capable of displaying 1080i and 480p DTV signals when connected to a DTV Tuner Set-Top-Box (STB). This TV also utilizes a progressive scan doubler, which de-interlaces the NTSC signal and progressively scans the image.

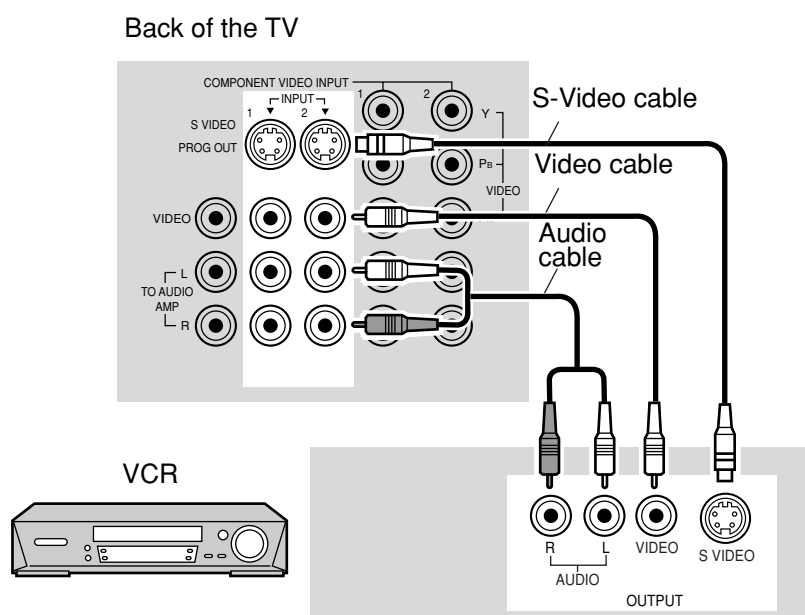
- To view DTV programs, connect the STB to the component video input terminals (Y, P_B, P_R) of the TV. Component color inputs provide luminance and separate color signal.
- Select the output of the STB to either 1080i or 480p.
- A DTV signal must be available in your area.
- Use a Panasonic DTV-STB (Digital TV-Set-Top Box) or DVD Player.



Note:

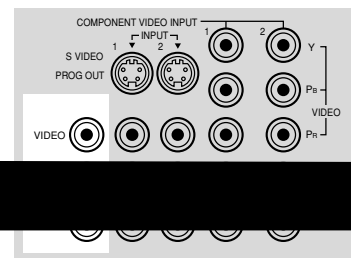
1080i signals will be re-formatted to view on your plasma display.

VCR Connection

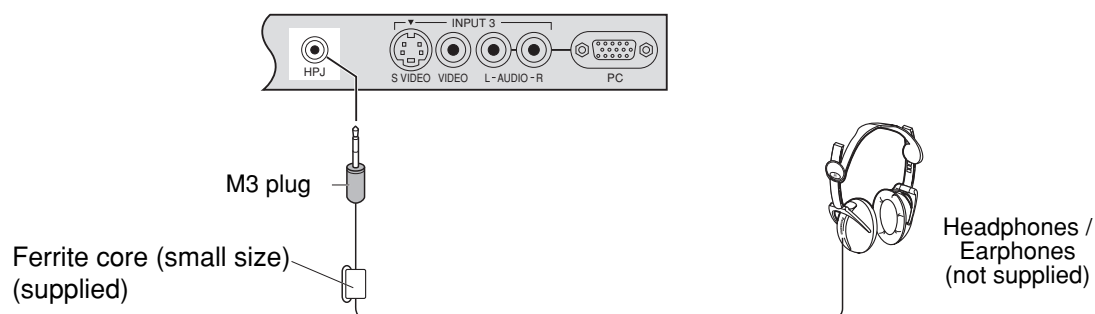


Note:

The S-VIDEO connection provides higher quality picture. It overrides other VIDEO connections. Use INPUT 2, AUDIO L and R with S-VIDEO connection.

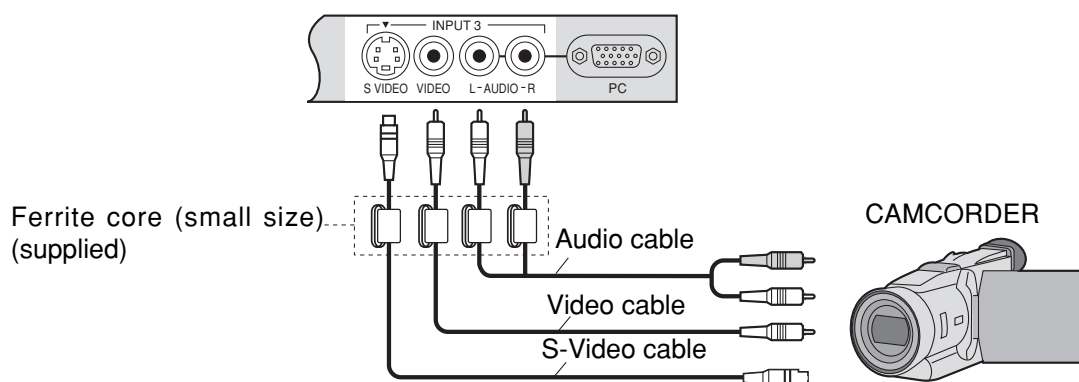


Connecting Headphones / Earphones



Connecting to the front AV terminals

Push to open the front panel and connect equipment to front Audio/Video input terminals.

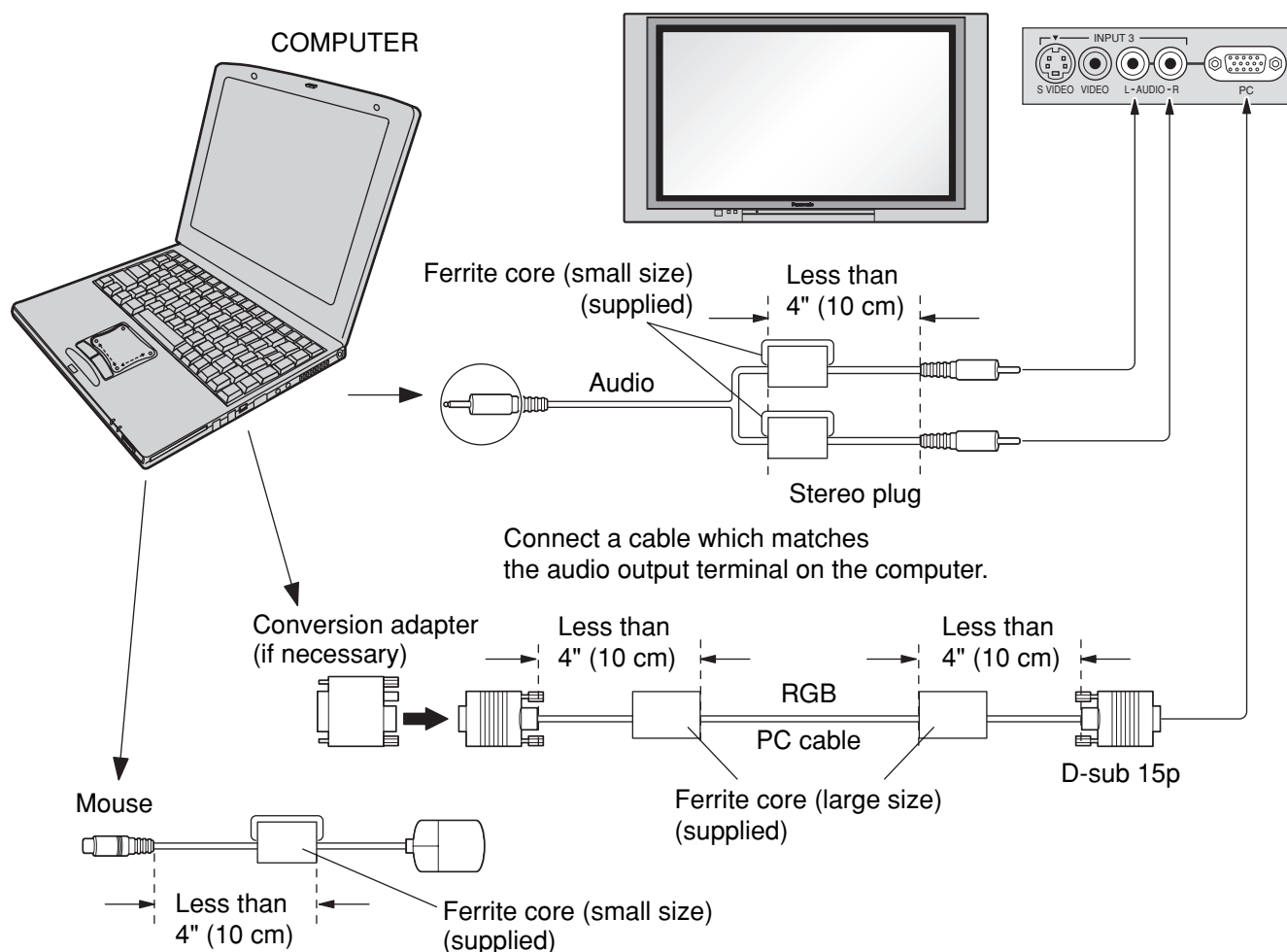


A second VCR, video disc player, video game equipment and DSS equipment can also be connected to the video input terminals. See the optional equipment manual for details.

Note:

The S-VIDEO connection provides higher quality picture. It overrides other VIDEO connections. Use INPUT 3, AUDIO L and R with S-VIDEO connection.

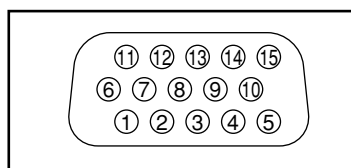
PC Input Terminals Connection



Notes:

- (1) Computer signals which can be input are those with a horizontal scanning frequency of 15 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- (2) The display resolution is a maximum of 640×480 dots when the aspect mode is set to "4:3", and 852×480 dots when the aspect mode is set to "16:9". If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- (3) Some PC models cannot be connected to the set.
- (4) There is no need to use an adapter for computers with DOS/V compatible D-sub 15P terminal.
- (5) The computer shown in the illustration is for example purposes only.
- (6) Additional equipment and cables shown are not supplied with this set.
- (7) Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.

Signal Names for D-sub 15P Connector



Pin Layout for PC Input Terminal

| Pin No. | Signal Name | Pin No. | Signal Name | Pin No. | Signal Name |
|---------|--------------------|---------|--------------------|---------|--------------------|
| ① | R | ⑥ | GND (Ground) | ⑪ | NC (not connected) |
| ② | G | ⑦ | GND (Ground) | ⑫ | NC |
| ③ | B | ⑧ | GND (Ground) | ⑬ | HD/SYNC |
| ④ | NC (not connected) | ⑨ | NC (not connected) | ⑭ | VD |
| ⑤ | GND (Ground) | ⑩ | GND (Ground) | ⑮ | NC |

[illegible]

Location of Controls

The Illuminated Remote Control

POWER

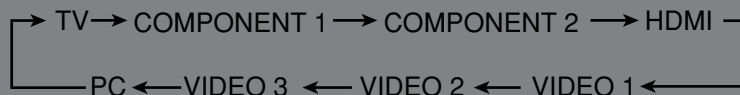
Turn the TV ON or OFF.

Mode Selection buttons (see page 59)

TV: TV
VCR: VCR
DVD: DVD
DBS: Digital Broadcasting Satellite
RCVR: Receiver/Amplifier
CBL: Cable TV
AUX: Aux

TV/VIDEO

Change the input mode.



SD

Access Photo Viewer (see page 48).

R-TUNE

Switch to previously viewed channel and input modes.

PIP MIN, PIP MAX
Change the size of PIP frame (see page 52).

Operation of other Device (see pages 63, 64)

SEARCH
Display search frames during PIP or SPLIT operation (see pages 53, 55).

PIP CH
Select the channel during PIP or SPLIT operation (see pages 52, 54).

FREEZE
Freeze the picture (see pages 53, 55).

PIP

PIP (Picture in Picture) Operation (see page 52)

SPLIT

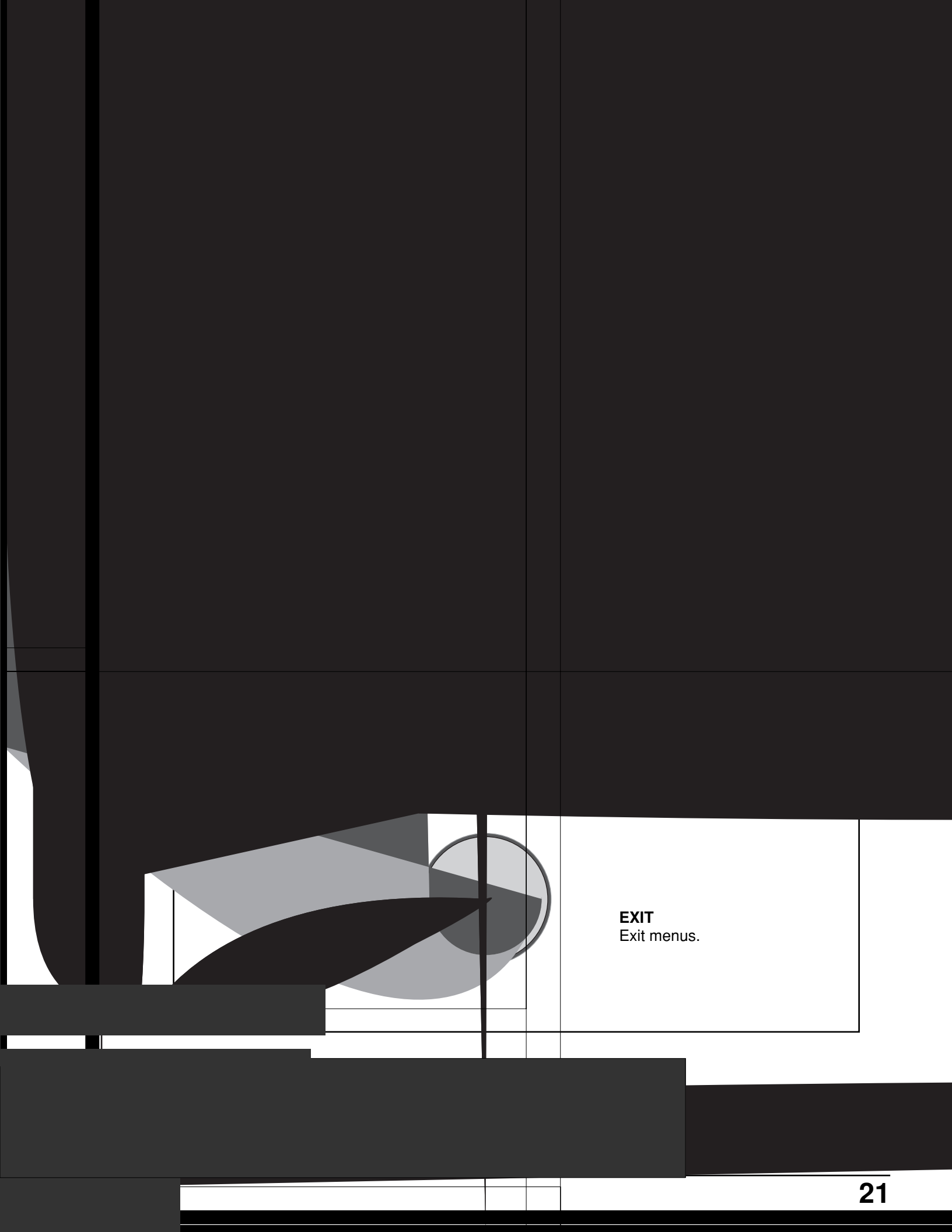
Split Screen (see page 54)

MOVE

Move PIP frame (see page 53).

SWAP

Swap pictures in PIP or SPLIT operation (see pages 52, 54).



EXIT
Exit menus.

First Time Setup

For your convenience, First Time Setup menu will be displayed on screen when the set is turned on for the first time. If needed, follow the menus and procedures displayed on-screen for setting up the features. You can also make the settings in Setup menu (see pages 36, 37).



Input Setup

Select the configuration of RF input depending on the signal source.

| First Time Setup | | |
|------------------|---------|---------------|
| Input Setup | Setting | Cable/Antenna |
| Auto Scan | | |

- Press to select Input Setup.
 - Press to select Cable only, Cable/Antenna or Antenna only.
 - Press to enter your selection.
- Press to start the Auto Scan. All available channels with a signal will be programmed into memory.

Auto Scan

This feature allows you to selectively auto scan channels. You can scan All, Analog only channels or Analog & Digital channels.

- Press to select Auto Scan.
 - Press to enter the sub-menu field.
- Press to select the sub-menu.
 - Press to start Auto Scan. After Auto Scan is completed, the TV tunes to the first channel found during Auto Scan.

| First Time Setup | |
|------------------|------------------------------|
| Input Setup | Scan All |
| Auto Scan | Antenna (A) Analog |
| | Antenna (A) Analog & Digital |
| | Antenna (B) Analog |
| | Antenna (B) Analog & Digital |

To return to the previous menu

Press .

To exit the menu screen

Press .



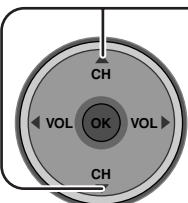
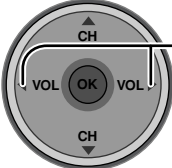
Notes:

- If the EXIT button is pressed at anytime during Auto Scan, Auto Scan will be cancelled and the TV will return to the First Time Setup menu.
- If a CableCARD is present during the First Time Setup and Antenna (A) is set to cable, Antenna (A) will not be scanned due to the CableCARD providing the channel map.

Watching TV programs

VHF and UHF



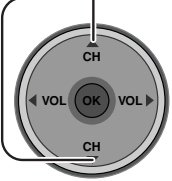


- 1  Press to operate the TV set with the remote control.
- 2  Press to turn the TV on.
- 3  Press to select desired channel.
- 4  Select the desired volume level.

Notes:

- The channel number and volume level remain the same even after the TV is turned off.
- Power consumption and howling sound can be reduced if the volume level is lowered.

Cable TV

Make sure that registration with cable TV provider and connection of equipment are completed.

- 1  Select the TV channel 3 or 4.
 - 2  Press to operate the cable box with the remote control.
 - 3  Press to turn the cable box on.
 - Point the remote control towards the cable box.
- ### Notes:
- The remote control code number is set for Panasonic products.
 - To operate other manufacturer's product (see pages 59 - 64).

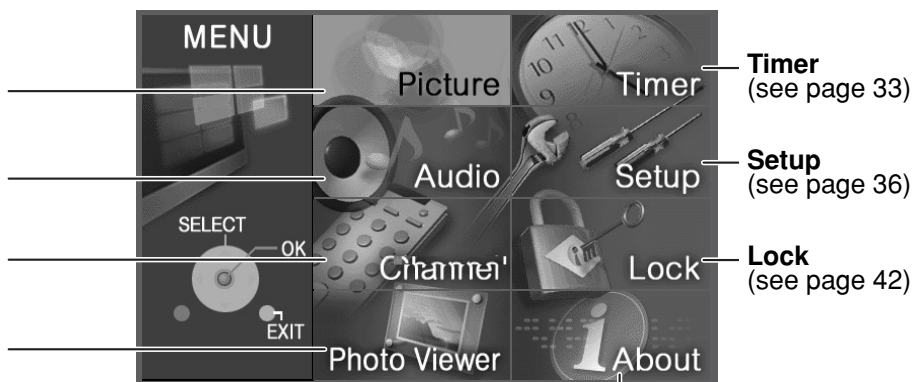
Menu Navigation

1

MENU



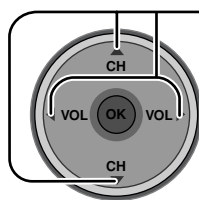
Press to display the Main menu.



About

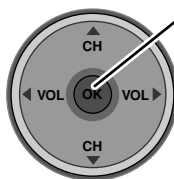
The About screen displays assorted information about the TV. Please have this information when calling Customer Care Center.

2



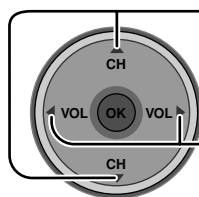
Press to select the menu.

3



Press to enter the sub-menu field.

4



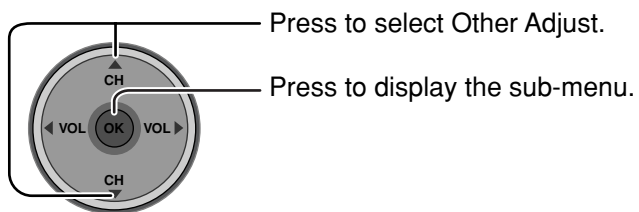
Press to select the sub-menu.

Press to adjust the sub-menu.

ex. Picture menu

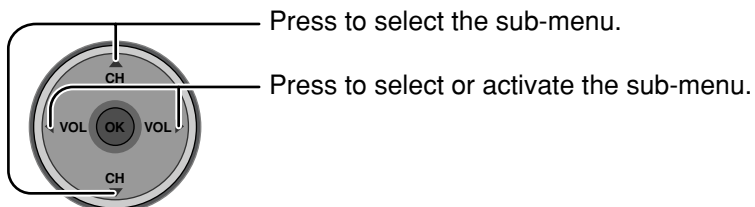
| | |
|--------------|-------|
| Picture | |
| Pic Mode | Vivid |
| Color | 31 |
| Tint | 31 |
| Brightness | 26 |
| Picture | 63 |
| Sharpness | 50 |
| Normal | No |
| Other Adjust | |

1 [To select Other Adjust sub-menu]



| Other Adjust | |
|---------------|-------|
| Color Temp | Cool |
| Natural Color | On |
| Video NR | Off |
| 3D Y/C Filter | Off |
| Color Matrix | HD |
| Freeze | Split |

2



To return to the previous screen



Press to return.

To exit menus



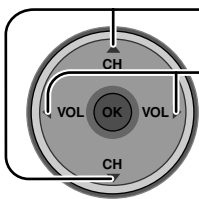
Press to return to normal picture.

Picture

| Picture | |
|--------------|-------|
| Pic Mode | Vivid |
| Color | 31 |
| Tint | 31 |
| Brightness | 26 |
| Picture | 63 |
| Sharpness | 50 |
| Normal | No |
| Other Adjust | |

Pic Mode

Lets you choose the pre-set picture modes that best suits the program you are viewing. This feature also affects Color Temp setting (see page 27).



Press to select Pic Mode.

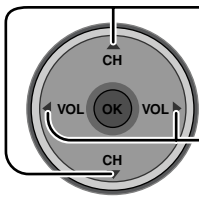
Press to select the picture mode.

- Vivid (default) : Provides enhanced picture contrast and sharpness for viewing in a well-lit room.
- Standard : Recommended for normal viewing conditions with subdued room lighting.
- Cinema : For watching movies in a darkened room. It provides a soft, film-like picture.
- Auto : Automatically senses the ambient light conditions and adjusts the brightness and gradation accordingly, to optimise contrast.

Note:

Each mode has its own picture settings (Color, Tint, Brightness, Picture and Sharpness).

Color / Tint / Brightness / Picture / Sharpness / Normal

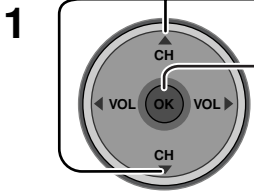


Press to select the sub-menu.

Press to adjust the sub-menu.

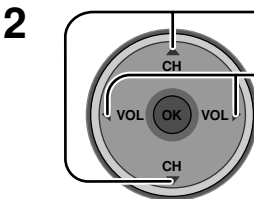
| Item | Explanations |
|------------|---|
| Color | Adjusts desired color intensity. |
| Tint | Adjusts natural flesh tones. |
| Brightness | Adjusts dark areas of picture. |
| Picture | Adjusts white areas of picture. |
| Sharpness | Adjusts clarity of outline detail. |
| Normal | Resets all picture adjustments to factory default settings. |

Other Adjust



Press to select Other Adjust.

Press to display the sub-menu.

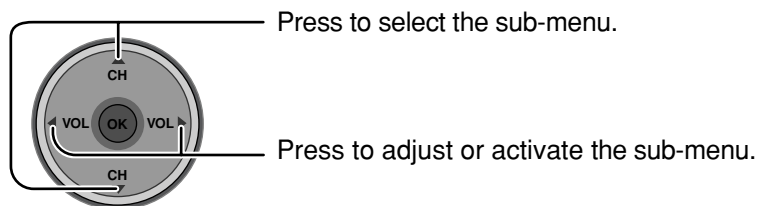


Press to select the sub-menu.

Press to select or activate the sub-menu.

| Other Adjust | |
|---------------|-------|
| Color Temp | Cool |
| Natural Color | On |
| Video NR | Off |
| 3D Y/C Filter | Off |
| Color Matrix | HD |
| Freeze | Split |

■ Color Temp (temperature) / Natural Color / Video NR / 3D Y/C Filter

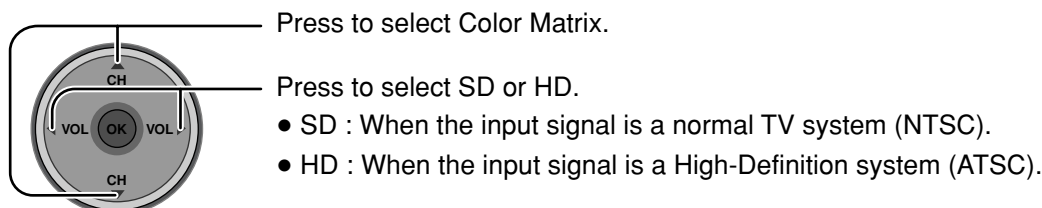


| Item | Explanations |
|---------------------------------|---|
| Color Temp (temperature) | To increase or decrease Warm (red) and Cool (blue) colors to suit personal preferences. |
| Natural Color | To increase the color reproduction range with natural color gradation and highly delicate hues. |
| Video NR | Reduces noise in the channel, commonly called snow. Remains off when receiving a strong signal. |
| 3D Y/C Filter | Minimizes noise and cross color in the picture. |

■ Color Matrix

Displays 480p input signals in a natural color from digital equipment adapters connected to COMPONENT VIDEO INPUT (Y, P_B, P_R) terminals.

Select HD or SD to automatically adjust color parameters for HD (high definition) or SD (standard definition).

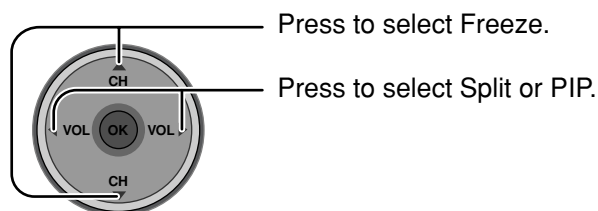


Notes:

- This feature is available only with 480p signal and not available with regular TV (NTSC) program.
- When viewing a non-standard DTV signal format, you can change color parameters manually for the best picture quality.

■ Freeze

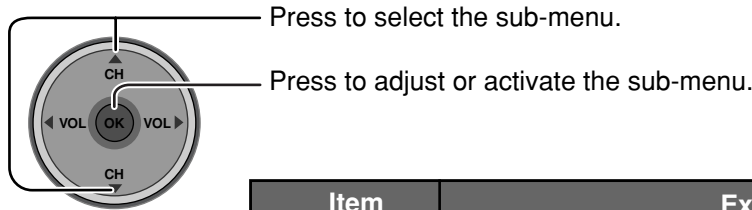
This feature is used to freeze main picture and display it in a PIP or SPLIT frame, when the **FREEZE** button on the remote control is pressed. Press **FREEZE** again to delete frame (see pages 53, 55).



Audio

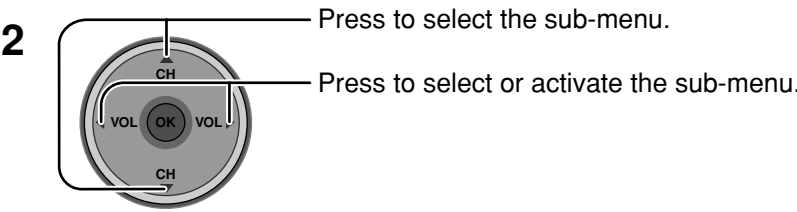
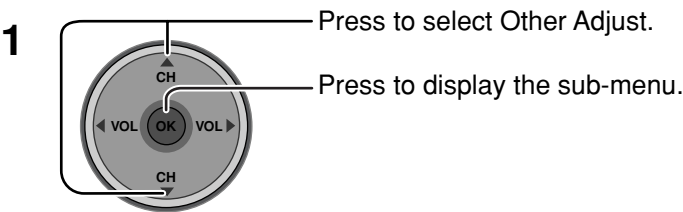
| Audio | |
|--------------|-----|
| Bass | 7 |
| Treble | 7 |
| Balance | 31 |
| Normal | Set |
| Other Adjust | |

Bass / Treble / Balance / Normal



| Item | Explanations |
|---------|---|
| Bass | Increase or decrease the bass response. |
| Treble | Increase or decrease the treble response. |
| Balance | Emphasize the left / right speaker volume. |
| Normal | Reset Bass, Treble and Balance adjustments to factory default settings. |

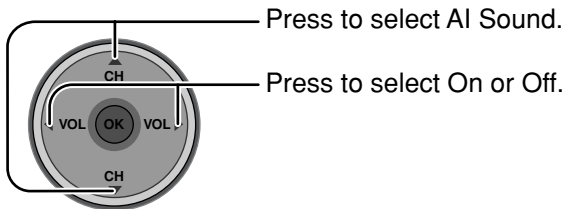
Other Adjust



| Other Adjust | |
|--------------|------|
| AI Sound | On |
| BBE VIVA 3D | Off |
| BBE | Off |
| Surround | Off |
| Speakers | On |
| HDMI In | Auto |

■ AI Sound

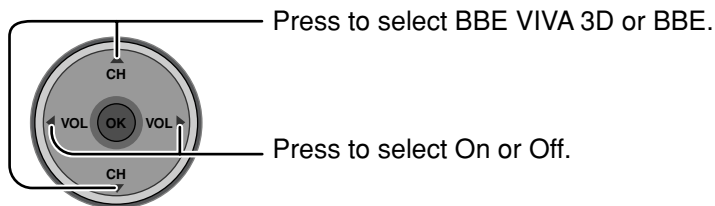
Equalize overall volume levels across all channels. AI sound is not available in VIDEO input mode (see page 20).



■ BBE VIVA 3D / BBE

BBE VIVA 3D BBE VIVA 3D provides a musically accurate natural 3D image with hi-fi sound. The clarity of the sound is improved by BBE while the width, depth and height of the sound image are expanded by BBE's proprietary 3D sound processing. BBE VIVA 3D is compatible with all TV programs including news, music, dramas, movies and sports as well as electronic games. BBE VIVA 3D enhances the surround sound effect, while maintaining the clarity of dialogue.

BBE Sound technology enhances speech intelligibility and restores the dynamic range of musical passages to provide outstanding natural sound.

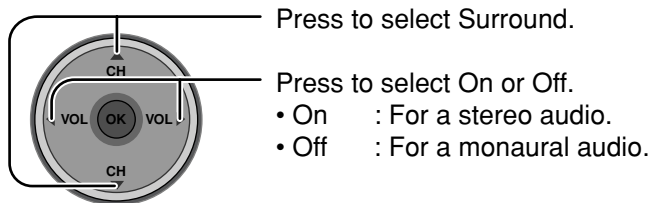


Notes:

- When "BBE VIVA 3D" is set to On, "BBE" and "Surround" setting are fixed to "On".
- When "BBE VIVA 3D" is set to Off, "BBE" and "Surround" can be set individually.

■ Surround

Enhances audio response when listening to stereo.

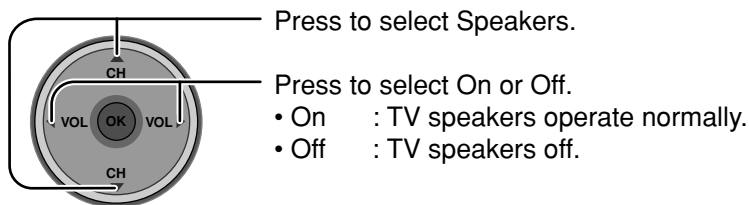


Note:

This feature is effective when BBE VIVA 3D is set to Off.

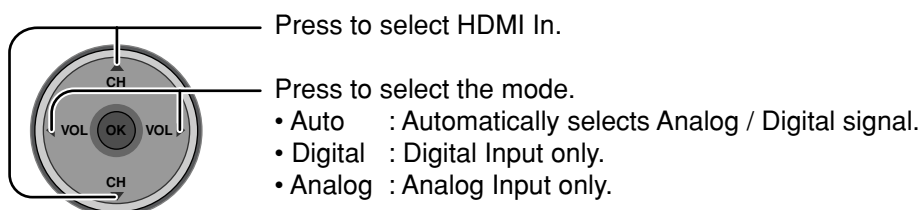
■ Speakers

This feature is used to turn TV speakers On or Off (see page 16, Amplifier Connection).

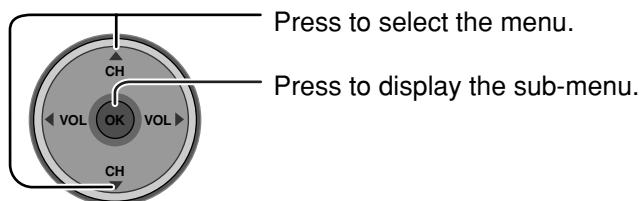


■ HDMI In

When using HDMI (see page 14), this feature will let you switch between Analog Input and Digital Input.



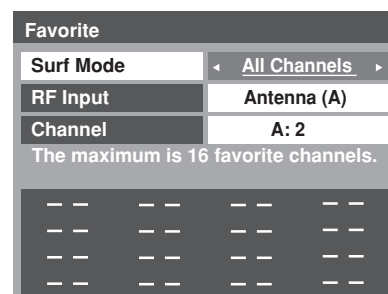
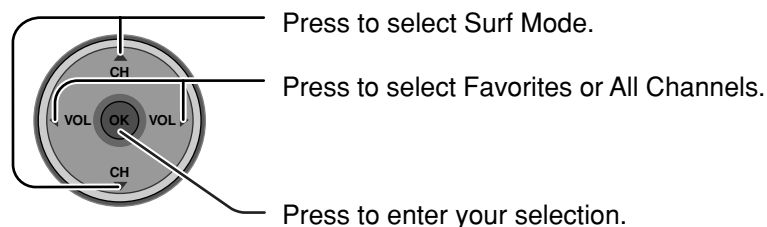
Channel



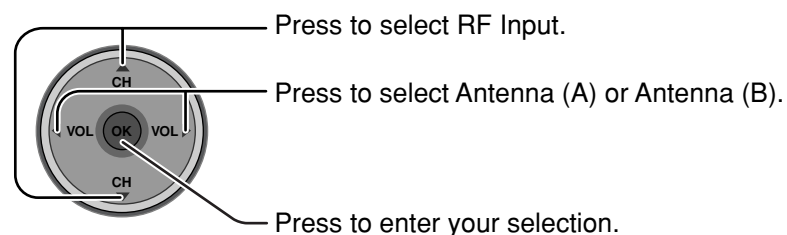
Favorite

Allows you to create Favorite channel list from Antenna (A) or Antenna (B).

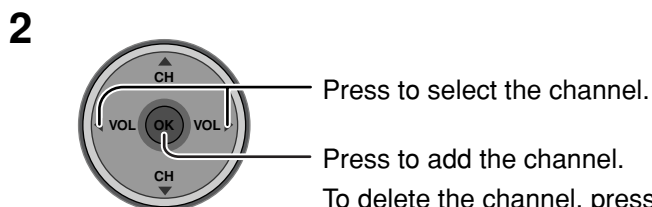
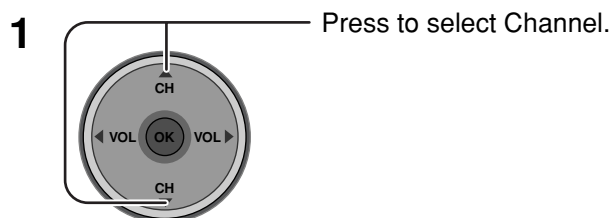
■ Surf Mode



■ RF Input



■ Channel



To delete the channel, press again while the channel number is displayed.

- Repeat step 2 up to 16 favorite channels.

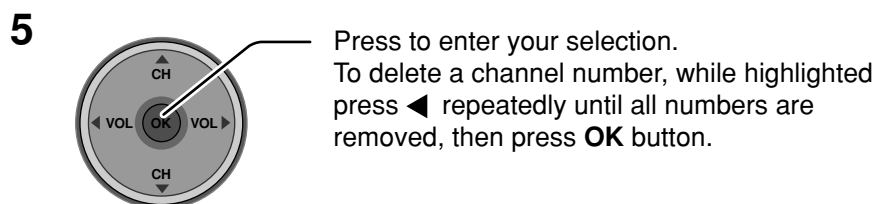
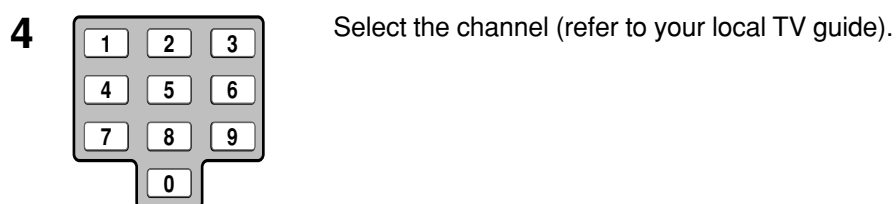
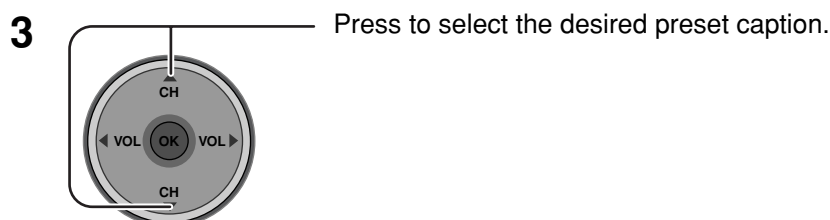
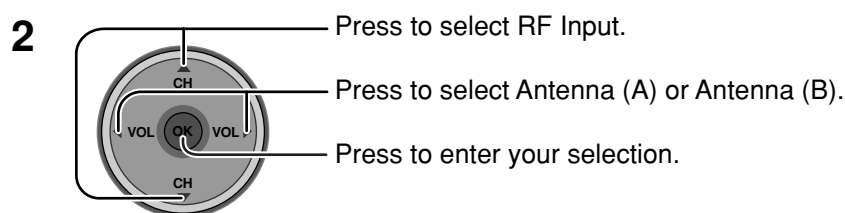
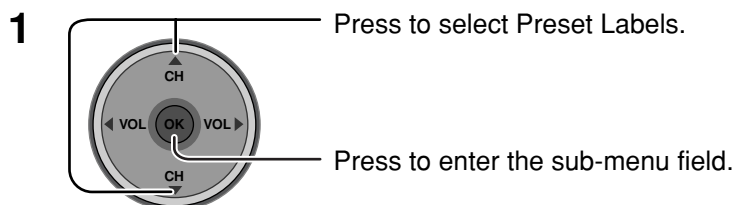
Captions

To enter preset and manual labels to desired stations. Also to enter input label to video inputs.

■ Preset Labels

To enter channel numbers for popular TV stations.

| Captions | | |
|---------------|----------|-------------|
| Preset Labels | RF Input | Antenna (A) |
| Manual Labels | ABC | |
| Input Labels | CBS | |
| | FOX | |
| | NBC | |
| | PBS | |
| | CNN | |
| | ESPN | |
| | HBO | |



Note:

Only input with signal will be selectable.

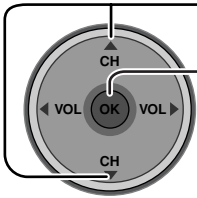
Menu Navigation

Manual Labels

To enter numbers and captions manually.

| Captions | | |
|---------------|----------|-------------|
| Preset Labels | RF Input | Antenna (A) |
| Manual Labels | Channel | A: 2 |
| Input Labels | Caption | |

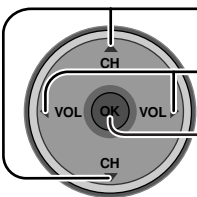
1



Press to select Manual Labels.

Press to enter the sub-menu field.

2

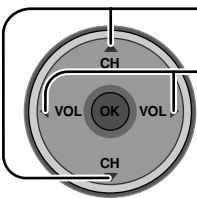


Press to select RF Input.

Press to select Antenna (A) or Antenna (B).

Press to enter your selection.

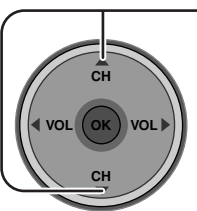
3



Press to select Channel.

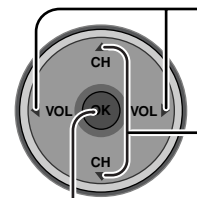
Press to select the available channel number.

4



Press to select Caption.

5



Press to select the character position.

Press to select the character (refer to your local TV guide).

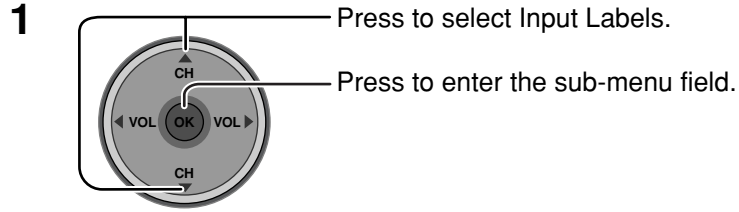
- Repeat until all characters are added, up to 7 characters can be added for each channel.
- To delete the Channel Caption, press until no character is displayed.

Press to enter your selection.

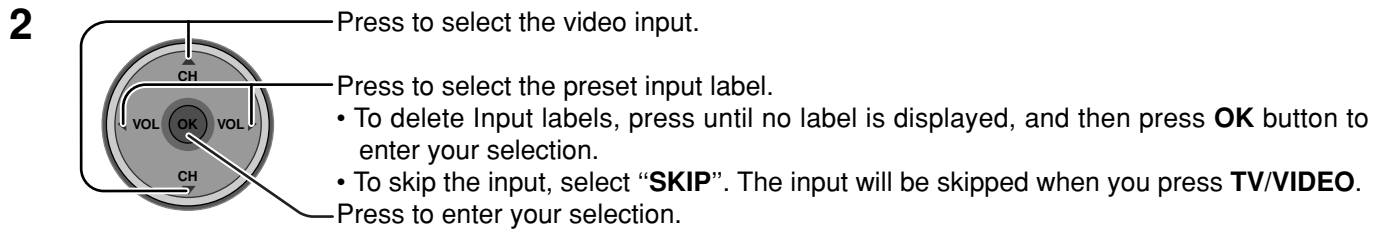
Note:
Only input with signal will be selectable.

■ Input Labels

To label video input connections for on-screen display.



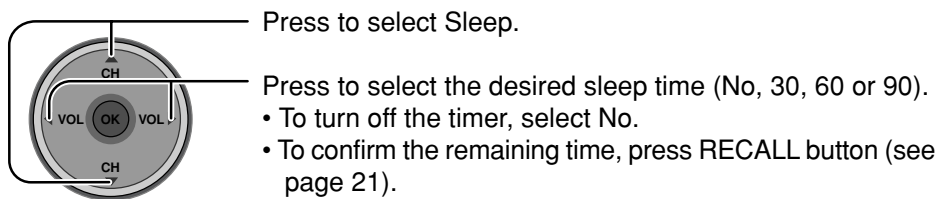
| Captions | | |
|---------------|-------------|--|
| Preset Labels | Component 1 | |
| Manual Labels | Component 2 | |
| Input Labels | HDMI | |
| | Video 1 | |
| | Video 2 | |
| | Video 3 | |
| | PC | |



Timer

Set the time in Clock Set (see page 35) before setting Timer.

Sleep

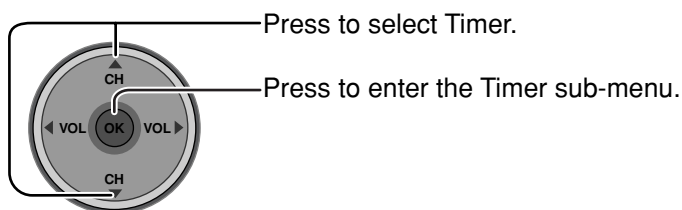


| Timer | | |
|-----------|-------|-----|
| Sleep | | No |
| Timer | | |
| Clock Set | --:-- | -- |
| Day Set | | --- |

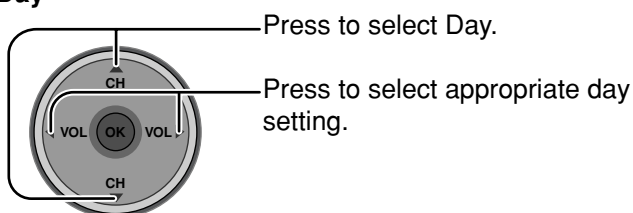
Menu Navigation

Timer

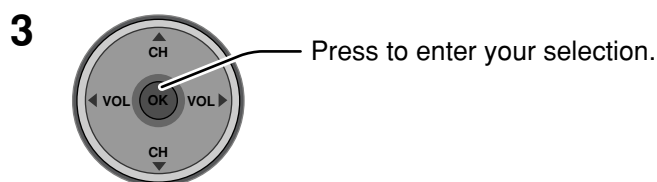
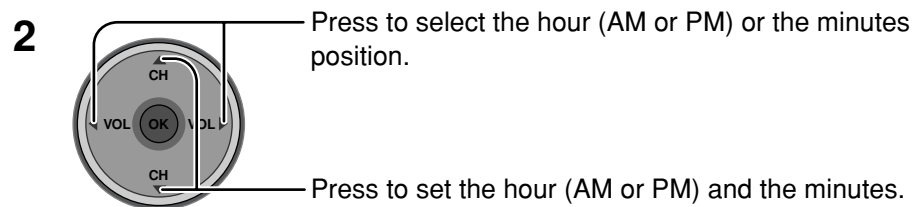
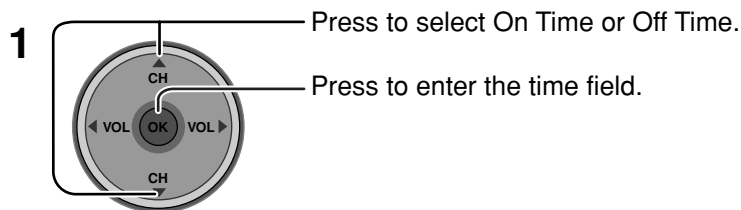
Select timer to turn the TV on and off at selected times and on selected day.



■ Day



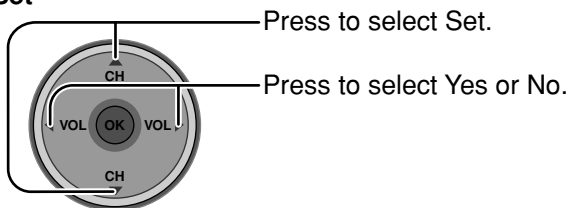
■ On Time/ Off Time



Notes:

- The TV automatically turns Off after 90 minutes when turned On by the Timer. It will be cancelled if the Off Time is selected or if a key is pressed.
- When the power to the TV set is disrupted due to a power outage or similar problem, the off-timer will be deactivated and the TV will be in standby mode even after power is restored.

■ Set



| | |
|-----------|------------|
| Timer | |
| Sleep | No |
| Timer | |
| Clock Set | -- : -- -- |
| Day Set | --- |



| | |
|----------|-----------|
| Timer | |
| Day | MON-FRI |
| On Time | 7 : 10 AM |
| Off Time | 8 : 10 PM |
| Set | Yes |

To return to the previous screen

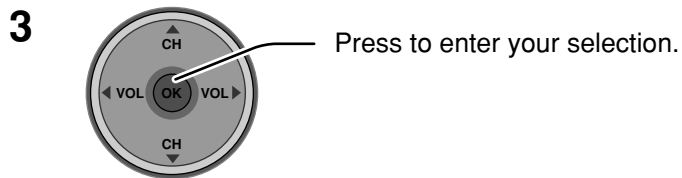
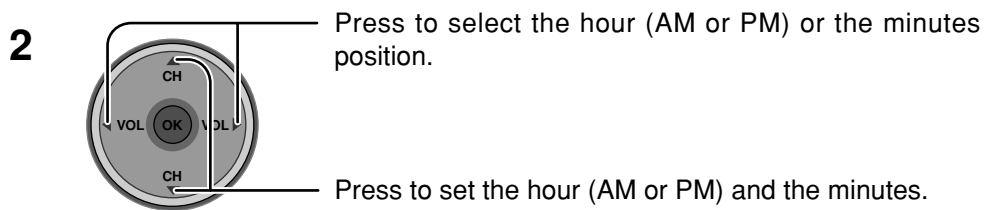
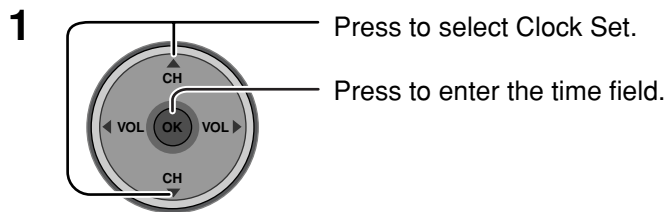


Press to return.

To activate Timer

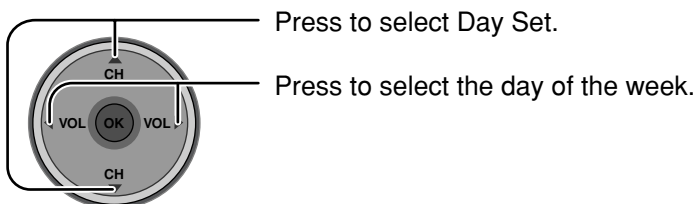
Select the channel and turn off the TV.

Clock Set

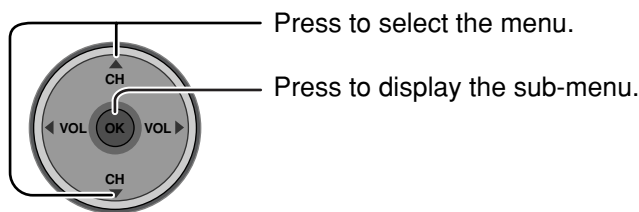


Day Set

Set the day of the week.



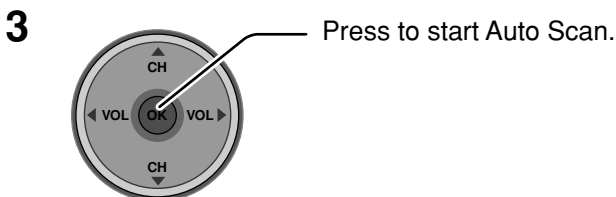
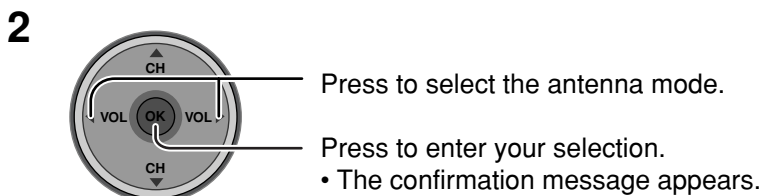
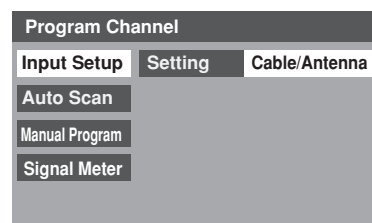
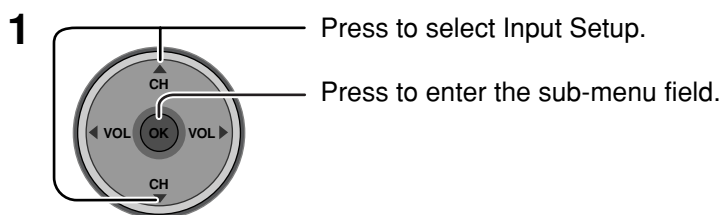
Setup



Program CH

■ Input Setup

Lets you specify the antenna mode (Cable only, Cable/Antenna or Antenna only).

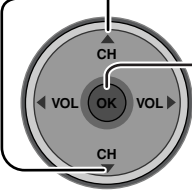
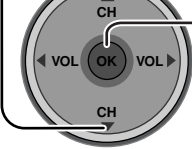
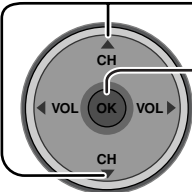
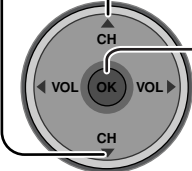


Notes:

- Auto scan is necessary when you select the input signal for the first time or whenever you change the antenna configuration.
- If CableCARD is not inserted, the Auto scan performs Scan All.
- When CableCARD is inserted and Cable only is selected, Auto Scan will be skipped.
- When CableCARD is inserted and Cable/Antenna is selected, Antenna (B) Analog & Digital Auto Scan will be performed.
- In order to manually select Antenna B from the remote, Auto Scan must first be performed.

Auto Scan

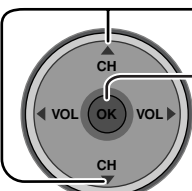
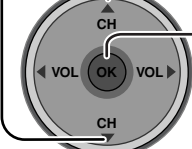
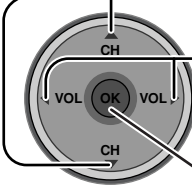
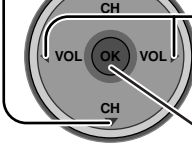
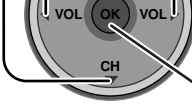
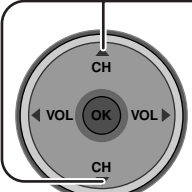
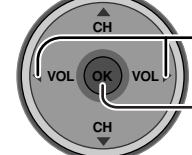

Automatically scans all available channels, Antenna (A) Analog, Antenna (A) Analog & Digital, Antenna (B) Analog and Antenna (B) Analog & Digital.

- 1  Press to select Auto Scan.
 Press to enter the sub-menu field.
- 2  Press to select the sub-menu.
 Press to start Auto Scan.
 - After Auto Scan is completed, press **MENU** to return to the previous screen.

| Program Channel | |
|-----------------|------------------------------|
| Input Setup | Scan All |
| Auto Scan | Antenna (A) Analog |
| Manual Program | Antenna (A) Analog & Digital |
| Signal Meter | Antenna (B) Analog |
| | Antenna (B) Analog & Digital |

Manual Program

To add or delete channels from either channels list (A/B) manually.

- 1  Press to select Manual Program.
 Press to enter the sub-menu field.
- 2  Press to select RF Input.
 Press to select Antenna (A) or Antenna (B).
 Press to enter your selection.
- 3  Press to select Channel Add or Channel Del.
- 4  Press to select the channel.
 Press to add or delete the channel.

| Program Channel | | |
|-----------------|-------------|-------------|
| Input Setup | RF Input | Antenna (A) |
| Auto Scan | Channel Add | A: 1 |
| Manual Program | Channel Del | A: 2 |
| Signal Meter | | |

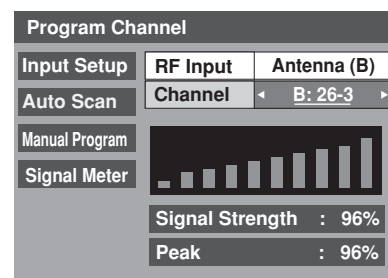
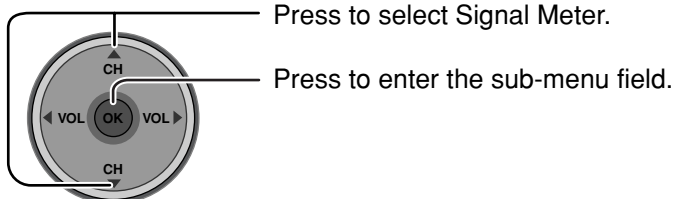
Menu Navigation

■ Signal Meter

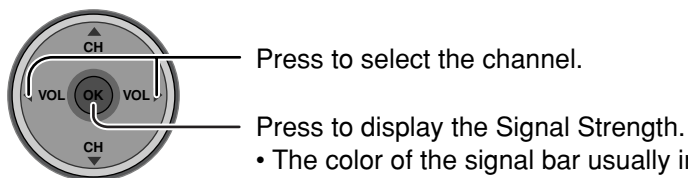
(For digital channels only)

Displays the signal strength of the ATSC digital channel in either Antenna (A) or Antenna (B).

1



2



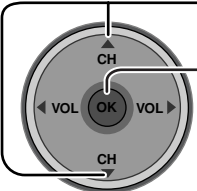

- The color of the signal bar usually indicates the strength of the received signal.
 - Green - Adequate signal for a good reception.
 - Yellow - Poor signal strength.
 - Red - Very poor signal strength.

Closed Caption

The television includes a built-in decoder that is capable of providing a visual display of the audio portion. The program viewed must provide Closed Captioning (CC) for the television to display it.

■ CC Mode

Activates Closed Captioning when the MUTE button is pressed.

- 1  Press to select CC Mode.
Press to enter the sub-menu field.
- 2  Press to select the setting.
 - Off
 - On : To display Closed Captions.
 - On Mute : To display Closed Captions when audio is muted.

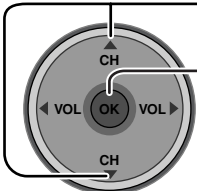
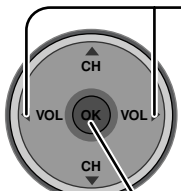
| Closed Caption | | |
|----------------|---------|-----|
| CC Mode | Setting | Off |
| Analog | | |
| Digital | | |

Notes:

- The closed caption is not displayed when you use HDMI connection.
- When displaying or recording an analog channel program on a connected equipment, select the closed caption On/Off setting on the connected equipment. The TV's CC Mode setting does not affect with the analog channel output signal.
- When displaying or recording a digital channel program on a connected equipment, set the TV's CC Mode setting to Off and select the closed caption On/Off setting on the connected equipment. The digital closed captions will overlap if the closed caption setting is On on both the TV and the connected equipment.

■ Analog

Lets you choose the closed caption service of Analog broadcasting.

- 1  Press to select Analog.
Press to enter the sub-menu field.
- 2  Press to select the setting.
 - CC1 : For video related information that can be displayed (up to 4 line of script on the screen, where it does not disturb the relevant parts of the picture). Script can be in any language.
 - CC2/CC3/CC4 : Other modes used for video related information.
 - T1 : Blanks out a large portion of the picture on the television screen, and displays program guide or any other information currently being transmitted.
 - T2/T3/T4 : Other modes that display information and blank out a large portion of the picture of theTV screen.
 Press to enter your selection.

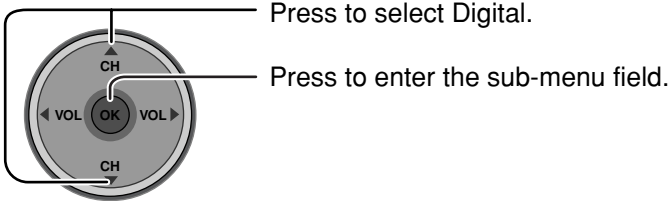
| Closed Caption | | |
|----------------|---------|-----|
| CC Mode | Service | CC1 |
| Analog | | |
| Digital | | |

Menu Navigation

■ Digital

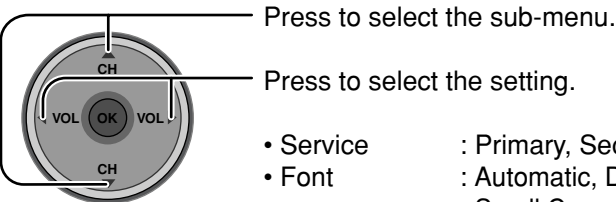
The Digital Closed Caption menu lets you configure the way you choose to view the digital captioning.

1



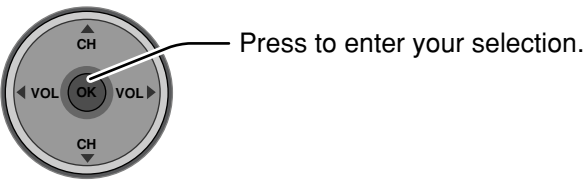
| Closed Caption | | |
|----------------|---------|-----------|
| CC Mode | Service | Primary |
| Analog | Font | Automatic |
| Digital | Size | Automatic |
| | Style | Automatic |
| | Colors | |
| | Reset | |
| Sample CC Text | | |

2

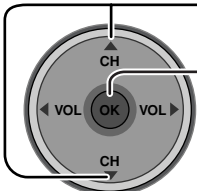
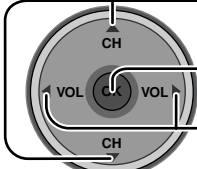


- Service : Primary, Secondary, Service 3, Service 4, Service 5, Service 6
- Font : Automatic, Default, Mono-serif, Pro-serif, Mono, Prop, Casual, Cursive, Small Caps
- Size : Automatic, Normal, Small, Large
- Style : Automatic, None, Raised, Depressed, Uniform, Drop Shadow
- Colors : Foreground The opacity of the font (Automatic, Black, White, Red, Green, Blue, Yellow, Magenta, Cyan)
Fore Opacity The opacity of the text box (Automatic, Transparent, Translucent, Solid, Flashing)
Background The color of the text box (Automatic, Black, White, Red, Green, Blue, Yellow, Magenta, Cyan)
Back Opacity The opacity of the text box (Automatic, Transparent, Translucent, Solid, Flashing)
Outline The outline of the dropshadow (if selected under style)(Automatic, Black, White, Red, Green, Blue, Yellow, Magenta, Cyan)
- Reset : Reset the Digital CC settings.

3



Other Adjust

- 1 
 - Press to select Other Adj.
 - Press to display the sub-menu.
- 2 
 - Press to select the sub-menu.
 - Press to enter the next field.
 - Press to select or activate the sub-menu.

| Other Adjust | |
|---------------|--------|
| Auto Power On | Off |
| Side Bar | Bright |
| Power Save | Off |

■ Auto Power On (Set or Off)

Select Set to power up the TV at the same time as the cable box or other connected components.

■ Side Bar (Off, Dark, Mid, Bright)

Displaying a picture in 4:3 mode for an extended period may cause an after-image. Change the brightness of the side bars to prevent the after-image.

Notes:

- Setting the side bar to Bright for an extended period may cause an after-image.
- The side bar may flash (alternate black/white) depending on the picture. In such a case, set Pic Mode to Cinema (see page 26).

■ Power Save (Off or On)

Suppress the luminous level of the TV to reduce power consumption.

CableCARD

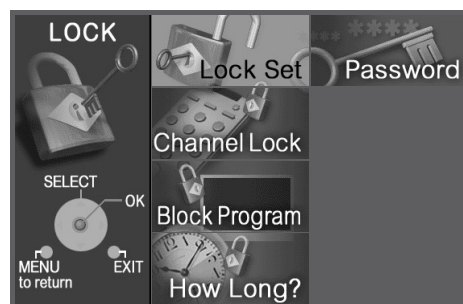
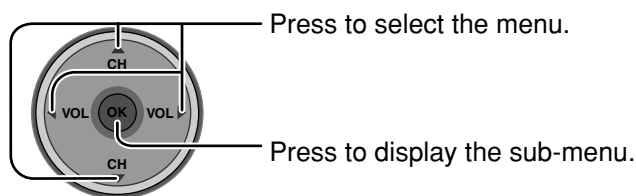
This menu provides information when a CableCARD is inserted into the CABLE CARD slot (see page 13).

Notes:

- If CableCARD is not inserted and you access the CableCARD Info, the message "Cable Module Not present" appears.
- To receive the features offered by your cable company, you may have to subscribe to those services. Contact your cable company regarding availability of the CableCARD. The CableCARD is required receive premium digital services (where available) through the cable input. You may also be able to order call-ahead pay per view events.

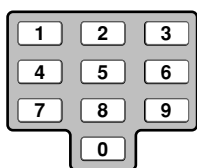
Menu Navigation

Lock

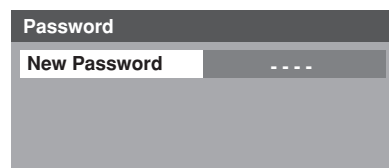


Password

Create a 4-digit password to enter the Lock menu.



Enter a 4-digit password.

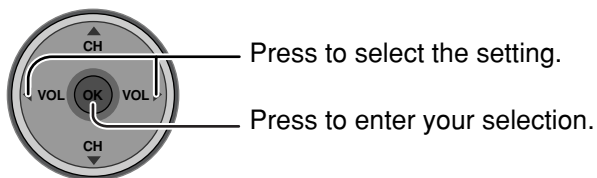


Notes:

- Use a code that is easy to remember and record it in a safe place.
- If Always is selected in How Long? (see page 45) and you forget your secret code, the TV must be serviced by a qualified technician to clear the Lock setup.

Lock Set

Select Lock Set to prevent viewing video games, VCR tapes, channels and Video modes.



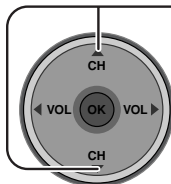
- Off : Turns off Lock set functions.
- Lock All : All channels are locked regardless of the rating level.
- Game Lock : Locks out CH 3, 4 and Video inputs.
- Channel Lock : Locks out specific analog and digital channels. Password is required to view any of the locked channels.

Channel Lock

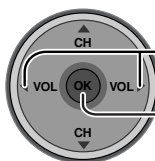
■ RF Input

Select either Antenna (A) or Antenna (B).

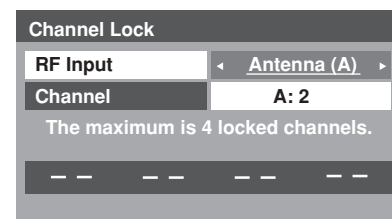
- 1 Press to select RF Input .



- 2 Press to select the setting.



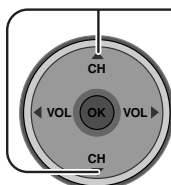
Press to enter your selection.



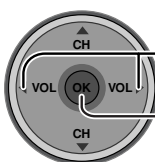
■ Channel

Select up to four (4) channels to be blocked out. These channels will be blocked out regardless of the program rating.

- 1 Press to select Channel.



- 2 Press to select the setting.



Press to enter your selection.

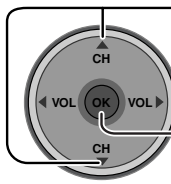
• To clear the channel number from the list, select the channel number and press **OK**.

Block Program

This television incorporates V-CHIP technology to block the viewing of movies and television programs according to the rating category. There are two (2) Content Advisory Categories: MPAA (Motion Picture Association of America) and TV Parental Guidelines Ratings. These categories are used as guidelines for blocking the programs.

- The default mode for the Lock category is the Unlocked state.

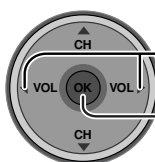
- 1 Press to select MPAA or U.S.TV.



MPAA : for U.S movie ratings
U.S. TV : for U.S TV program ratings

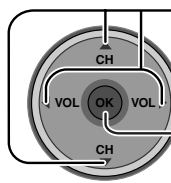
Press to enter the Mode field.

- 2 Press to select On or Off.



Press to enter your selection.

- 3 Press to highlight the desired rating level.



Press to change the rating limit to "Blocked" or "Viewable".

| Block Program | | |
|---------------|-------|----------|
| MPAA | Mode | Off |
| U.S.TV | NR | Viewable |
| | G | Viewable |
| | PG | Viewable |
| | PG-13 | Viewable |
| | R | Viewable |
| | NC-17 | Viewable |
| | X | Viewable |

Notes:

- The NR rating is independent of other ratings.
- Placing a block on a specific age based rating level, the NR rating and any other more restrictive ratings will also be blocked.

U.S. TV PROGRAMS RATINGS CHART

| | |
|--------------|---|
| NR | Not Rated. See Customer Caution below. |
| TV-Y | All children. The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6. |
| TV-Y7 | Directed to older children. Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7. |
| TV-G | General audience. It contains little or no violence, no strong language, and little or no sexual dialogue or situations. |
| TV-PG | Parental guidance suggested. The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations. |
| TV-14 | Parents strongly cautioned. This program may contain sophisticated themes, sexual content, strong language and more intense violence. |
| TV-MA | Mature audiences only. This program may contain mature themes, profane language, graphic violence, and explicit sexual content. |
| FV | FANTASY/CARTOON VIOLENCE |
| V | VIOLENCE |
| S | SEX |
| L | OFFENSIVE LANGUAGE |
| D | DIALOGUE WITH SEXUAL CONTENT |

U.S. MOVIES RATINGS CHART

| | |
|--------------|---|
| NR | CONTAINS NO RATING (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. Movie has not been rated or rating does not apply. |
| G | GENERAL AUDIENCES. All ages admitted. |
| PG | PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children. |
| PG-13 | PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13. |
| R | RESTRICTED. Under 17 requires accompanying parent or adult guardian. |
| NC-17 | NO ONE 17 AND UNDER ADMITTED. |
| X | ADULTS ONLY. |

Customer Caution

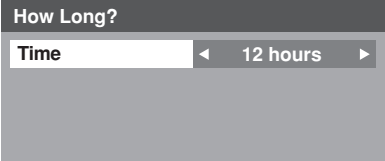
The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) per FCC Rules Section 15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

- Emergency Bulletins (Such as EAS messages, weather warnings and others)
- Locally originated programming • News • Political • Public Service Announcements • Religious • Sports
- Weather

Press to select How Long?

Press to select 12 hours, 24 hours, 48 hours
or Always.

Press to enter your selection.

A screenshot of a mobile application dialog box titled "How Long?". The dialog has a dark header bar with the title. Below the header, there is a light gray area containing a label "Time" followed by a selection control. The selection control consists of a left-pointing arrow, the text "12 hours", and a right-pointing arrow. The rest of the dialog box is a solid dark gray color.

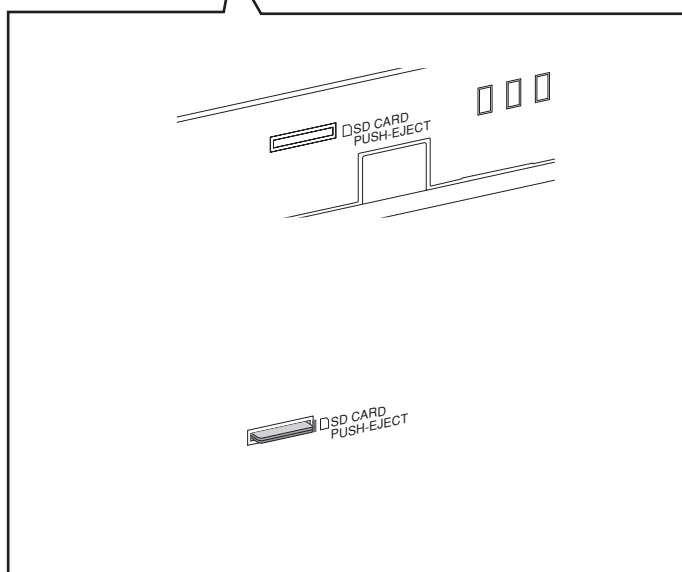
Various Blocking messages are displayed on-screen depending upon the type of blocking you have selected in the Lock menu.

Note:

Entering the password will override the block condition. However, the ratings selection will be retained.

Photo Viewer

Photo Viewer lets you display JPEG images recorded by digital camera on SD card or other types of memory card when it is inserted in the card slot.

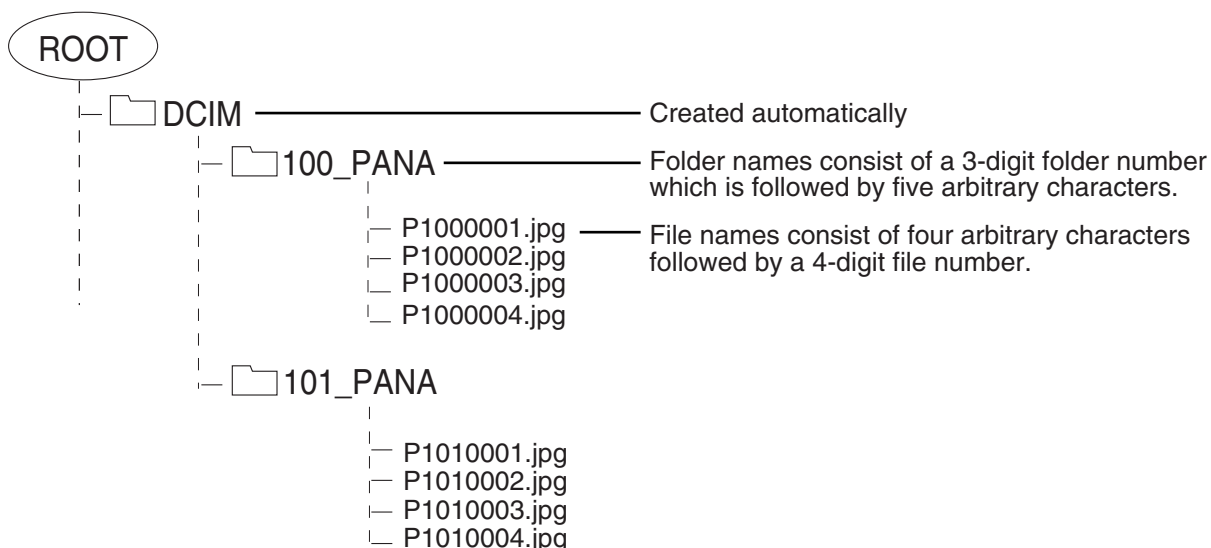


Folders and Files

- Photo Viewer can only show still images recorded by a digital still camera with DCF* and EXIF standard JPEG file.
- *DCF (Design rule for Camera File system)
Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).
- Memory cards must be formatted with FAT12 or FAT16 in order to be viewed on TV. If the card is not formatted, it may cause incompatibility with certain memory card adapters. If this happens, reformat the card using your digital camera.
Reformatting the card will erase the images stored in it. Refer to your camera manual for more information.
- Maximum number of folders that can be displayed: **100**.
- Maximum number of files that can be displayed: **3,000**.
- **Picture resolution:** Compatible in the range 64 x 64 - 8,192 x 8,192 (sub-sampling 4:2:2 or 4:2:0)
- If the image is imported from a PC, it must follow the EXIF (Exchangeable image file format) 2.0, 2.1, 2.2 in addition to the DCF (design rule for Camera File system) format.
- The JPEG modified using a PC will not be displayed on TV.
- The Photo Viewer cannot display Motion JPEG and still image not DCF formatted (i.e. TIFF, BMP).
- If the file is partially corrupted, it may be shown in lower resolution.
- The displayed image size depends on the recorded size.

Example folder structure

JPEG images in all the folders are displayed sequentially.



Notes:

- Folder and file names may vary according to the digital still camera.
- Use the characters "a-z", "A-Z", "0-9" and "_" to name a directory or a file. Do not use two-byte characters or other special codes.

Thumbnail Mode

The thumbnail screen is the initial entry screen from the main menu.



- 1 Insert the card into the card slot (see page 46).

OR



Press to display the thumbnail screen.



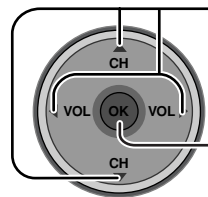
Picture No. /Total No. of pictures

File name, the date and the pixel (resolution) of the picture

Notes:

- You can also enter the thumbnail screen from MENU screen (see page 24).
- It may take long time to display the thumbnail if there are lots of files or the file size is large.
- The video disappears from the screen while the Photo Viewer access the information from the card. After accessing the images from the card, a thumbnail screen is displayed.

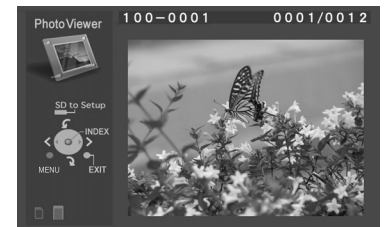
- 2



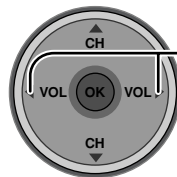
Select the thumbnail image.

Press to display the image in the single picture view mode.

Single picture view mode



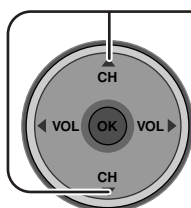
- 3



Press to select the next or the previous picture.
• Press **OK** to return to the thumbnail screen.

To rotate the picture

While in the single picture view mode




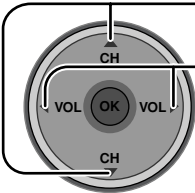
Press to rotate the picture ninety degree.

Photo Viewer Setup Menu

This menu allows you to customize features in the Photo Viewer Setup Menu.

While in the thumbnail mode or the single picture view mode (see page 48)

1  Press to display the Setup Menu screen.

2  Press to select the sub-menu.
Press to adjust or activate the sub-menu.

| Setup Menu | Return |
|------------|--------|
| Slide Show | Start |
| Interval | 5Sec |
| Sequence | Order |
| Repeat | OFF |
| Rotate | Left |
| Zoom | To Fit |

SELECT

OK

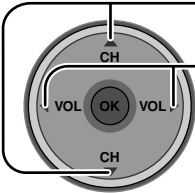
CHANGE

MENU

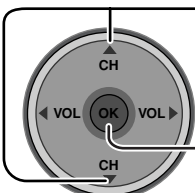
EXIT

Slide Show

Select the settings of Interval, Sequence and Repeat before starting the slide show.

1  Press to select the sub-menu.
Press to adjust or activate the sub-menu.

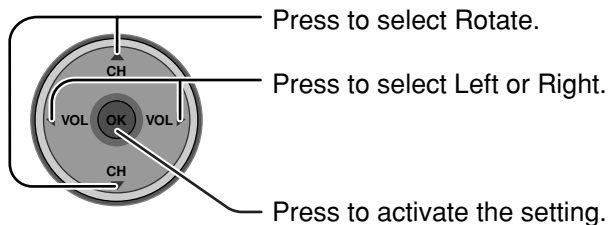
- **Interval**
Allows you to change the length of time that a slide is being displayed on screen. (5Sec, 10Sec, 15Sec, 30Sec, 60Sec, 90Sec, 10Min).
- **Sequence (Order or Random)**
- **Repeat (OFF or ON)**

2  Press to select Start.
Press to start the slide show.

- Press again to stop.
- Press **ASPECT** to change the aspect of the image (see page 56).

Rotate

Allows you to rotate the image (see also page 48).



Zoom

(While in the single picture view mode only)

Lets you select the magnification of the single picture display.

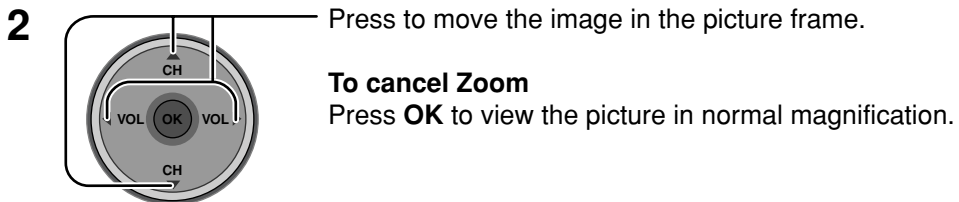
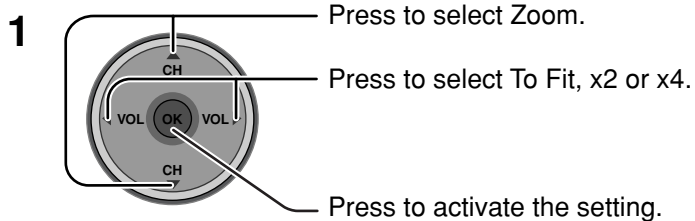



Photo Viewer Troubleshooting

| Symptom | Cause and remedy | Page |
|--------------------------------------|--|------|
| Cannot read the content of the card. | • Not compatible format. Must be formatted with FAT 12 or FAT 16. | 47 |
| | • The extension is not "JPG". | 47 |
| | • The folders not under DCF standard. | 47 |
| Poor picture quality. | If the main image cannot be read (the file is partially corrupted), the Photo Viewer will read the thumbnail. Please confirm the format of the image. | 47 |
| Long time to display. | There are lots of images or the file size is large. | 47 |
| The screen turns black. | If the TV is left with no operation for longer than 5 minutes during the thumbnail screen or the single picture view mode, the screen turns black to avoid image retention. Press any key to return to the normal display. | — |

■ Error messages

| | |
|---|--|
| "Card is not inserted correctly." | Insert a card. |
| "This type of image is not supported." | The JPEG file is corrupted and cannot be decoded. |
| "This type of format is not supported." | The card is not formatted with FAT 12 or FAT 16 or if it is not DCF standard. |
| "  " | Thumbnail and main picture cannot be shown. |
| "Photo Viewer cannot support over 3000 JPEG files." | Over 3,000 image files. |
| "Photo Viewer cannot support over 8192 x 8192 pixels." | Resolution over. |
| "This type of card is not supported." | Incompatible card is inserted. |
| "Press any key to return." | The screen turned black to avoid image retention. Press any key to return to the normal display. |

PIP (Picture in Picture) Operation

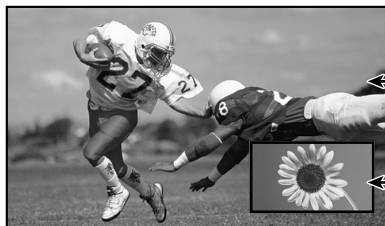
This television includes a two-tuner Picture In Picture (PIP) feature. This allows you to watch two (2) live broadcasts at the same time with or without an external video source such as a VCR, cable box, etc.



1



Press to display the PIP frame.



Main picture

PIP frame

Notes:

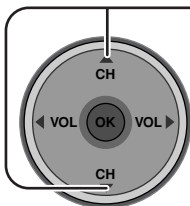
- Audio is from Main picture only.
- PIP frame displays analog channel signal of ANTENNA (A) only, and cannot display ANTENNA (B) or digital channel signal.

2 In the PIP frame



Select the channel.

In the Main picture



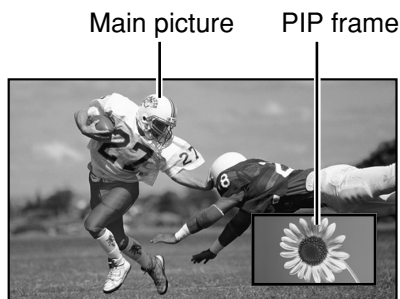
Press to select the channel.

- You can also use the numbered buttons.

To cancel the PIP operation



To swap the pictures



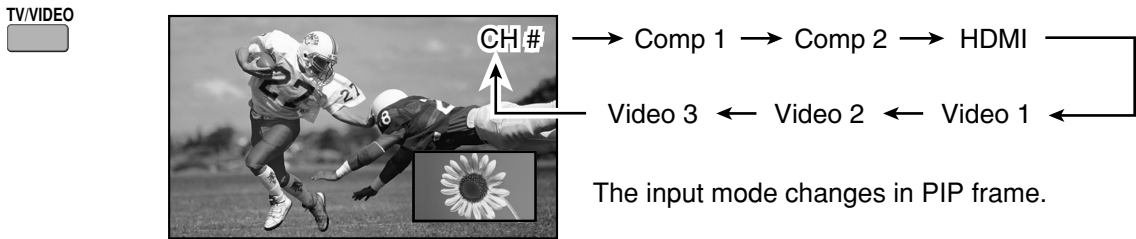
To change the size of PIP frame



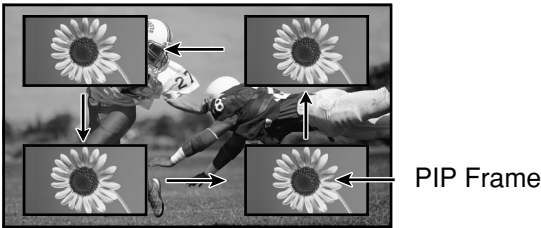
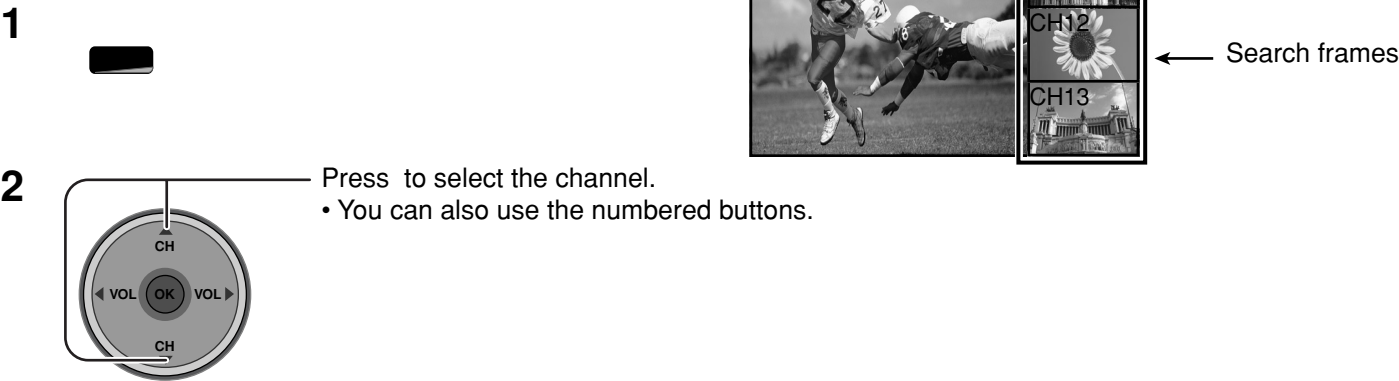
: smaller



: larger



(For analog channels only)



SPLIT Operation

This feature lets you watch two different channels side by side with or without an external video source.



1



Press to display the SPLIT frame.

Main picture



SPLIT frame
(The previously selected screen appears.)

Notes:

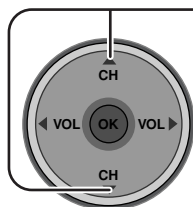
- Audio is from Main picture only.
- SPLIT frame displays analog channel signal of ANTENNA (A) only, and cannot display ANTENNA (B) or digital channel signal.

2 In the SPLIT frame



Select the channel.

In the Main picture



Press to select the channel.

- You can also use the numbered buttons.

To cancel the SPLIT operation



To swap the pictures



Main picture

SPLIT frame



Main picture

SPLIT frame



To freeze the picture

SPLIT frame



- Press again to cancel Freeze.

Main Picture

While SPLIT frame is not displayed

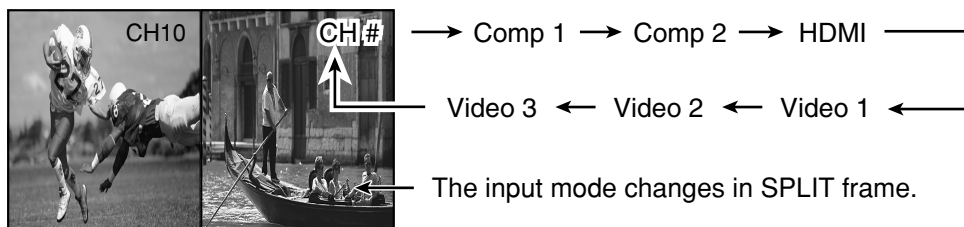


- Select PIP or Split (see page 27, Freeze) when freezing the Main picture.

Note:

Freeze is canceled after 3 minutes.

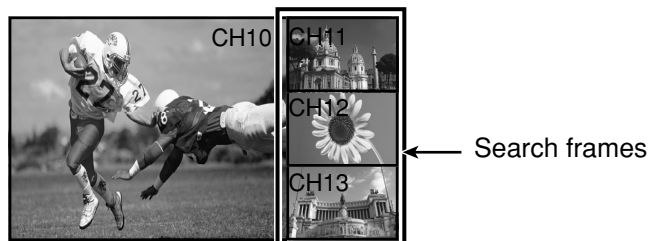
To select the input mode of SPLIT frame



To search the channel

(For analog channels only)

- 1 Press to display search frames.
• Press again to cancel Search.



- 2 Press to select the channel.
• You can also use the numbered buttons.

Notes:

- The Main picture and the SPLIT frame are processed in the individual circuits, and may have slight difference in image quality.
- You cannot display the same picture in the Main picture and the SPLIT frame at the same time.
- While Main picture freeze frame is displayed, you cannot select or search the channel, swap the pictures, or select the input mode.

Aspect Controls

Lets you choose the aspect depending on the format of the received signal and your preference.



Press to change the aspect mode.

Note:

The available aspect modes depend on the receiving signal.

- 480i : 4:3, Full, Just or Zoom
- 480p (4:3) : 4:3, Full or Zoom
- 480p (16:9) : 4:3, Full or Zoom
- 1080i : 16:9 only
- PC mode : NORMAL, FULL, JUST or ZOOM
(In PC mode, "4:3" indication is displayed as "NORMAL".)

| Mode | Picture | Explanation |
|-------------------------------------|---------|--|
| 4 : 3 (NORMAL in PC mode) | | Displays a 4:3 picture at its standard 4:3 size with gray side bars. (It may create an after-image on screen if displayed for a prolonged period of time.) |
| Zoom | | Expands a 4:3 picture uniformly (width and height) to full screen width and then reposition the picture vertically. (Recommended for letterbox. This will show picture at full screen size.) |
| Full | | Displays a picture at full screen size. (Recommended for anamorphic pictures.) |
| Just | | Stretches the right and left edges of a 4:3 picture to fill the screen, and the center of the screen have aspect correction applied. The size of the picture depends on the original signal. (Recommended for regular TV viewing.) |

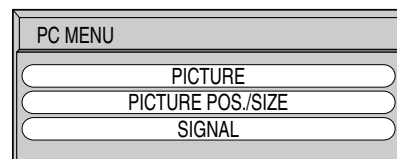
Note:

In PC mode, aspect mode information is displayed in the top right of the screen.

PC MENU

Preparation:

- Connect a PC to the TV (see page 18).
- Select PC input mode (see page 20).



- 1** Press to display the PC MENU.
 - 2** Press to select the sub-menu.
Press to display the sub-menu screen.
 - 3** Press to select the sub sub-menu.
Press to adjust the sub sub-menu.
-
- To return to the previous screen**
-

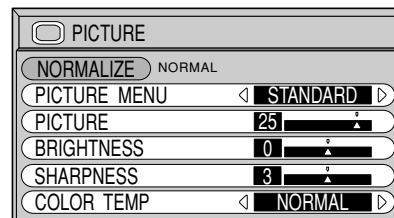
PICTURE

■ NORMALIZE

Select "NORMALIZE" to reset adjustments to the factory default setting.

Note:

You can select "NORMALIZE" when you changed the settings.



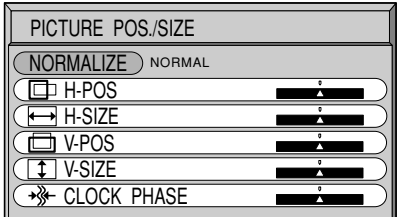
■ PICTURE MENU

| MENU | Function |
|-----------------|---|
| AUTO | Automatically selects the mode that best suits the brightness of the environment. |
| STANDARD | For viewing in standard (evening lighting) environments. |
| DYNAMIC | For viewing in brighter environments. |
| CINEMA | Ideal for movies. |

■ PICTURE, BRIGHTNESS, SHARPNESS, COLOR TEMP

| Item | Function |
|-------------------|---|
| PICTURE | Adjusts white areas of picture. |
| BRIGHTNESS | Adjusts dark areas of picture. |
| SHARPNESS | Adjusts clarity of outline detail. |
| COLOR TEMP | To increase or decrease WARM (red) and COOL (blue) colors to suit personal preferences. |

PICTURE POS./SIZE



Note:
If a “Cue” or “Rew” signal from a VCR or may DVD player is received, the picture position may shift up or down despite of the PICTURE POS./SIZE settings.

■ NORMALIZE

Select “NORMALIZE” to reset adjustments to the factory default setting.

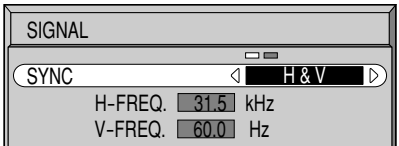
Note:
You can select “NORMALIZE” when you change the settings.

| Menu | When “◀” button is pressed | When “▶” button is pressed |
|---------------------------------|---|----------------------------|
| H-POS | | |
| H-SIZE | | |
| V-POS | | |
| V-SIZE | | |
| CLOCK PHASE (RGB/PC in Mode) | Flickering and distortion can be eliminated by using the Position Left “◀” or Right “▶” button to carry out adjustment. | |

SIGNAL

■ SYNC
(Only for RGB INPUT signal)

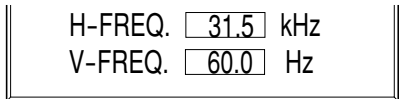
- H & V: The H and V sync signals are input from the HD/VD connector.
- ON G: Uses a synchronized signal on the Video G signal, which is input from the G connector.



■ H-FREQ. (kHz)/V-FREQ. (Hz)
(Only for RGB input signal)

Displays the H (Horizontal)/V (Vertical) frequencies.

Display range:
Horizontal 15 - 110 kHz
Vertical 48 - 120 Hz



Operating peripheral equipment using the remote control

Programming the remote control code

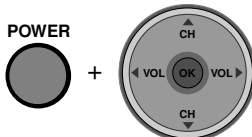
You can operate other manufacturers' components using this TV's remote control.

Preparation:

- Connect the plug of the external component to the well outlet.
- Make sure the component is turned off.



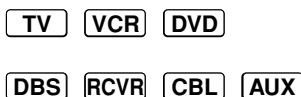
1



Press and hold **POWER** and **OK** together, for at least 5 seconds.

- The mode selection buttons flashes, and then release the **POWER** and **OK**.

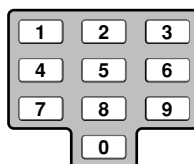
2



Select the type of the component.

- The selected button light and all others go out.

3



Enter the 3-digit infrared code (see pages 60-62).

- Factory default setting : Panasonic
- Press **POWER** to test the operation.

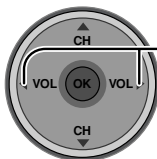
Notes:

- If the component does not operate with the remote control, repeat the procedure using another code. (Some brands have multiple codes.)
- If an incorrect code is entered, or if the procedure takes longer than 30 seconds, the programming will fail.

To find the code not listed in the index

1

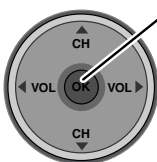
After selecting the type of component (step 2, above)



Press to select the code.

- The code starts from the current device.
- Press **POWER** button to test the operation.
- Repeat the steps until the component code is found. It may take many attempts before the correct code is found.

2



Press to store the code.

Operating peripheral equipment using the remote control

Infrared Code Index

The remote control is capable of operating many brands of peripheral equipment. Refer to page 59 for programming procedures.

Notes:

- The remote control memory is limited and therefore some models may not operate. The remote control is not designed to control all features available in all models.
- After entering the proper infrared code, press the desired Mode Selection buttons (see page 20). Refer to pages 63 and 64 for details on operating peripheral equipment using the remote control.

Infrared Remote Codes for Specific Components

Helpful Hint: Write down the code numbers for your components in the space provided below. This will serve as a handy reference whenever you need to reprogram your remote control.

| | | | | | |
|--|----------------------|---------------------------------------|----------------------|----------------------------------|----------------------|
| CABLE Cable Box | <input type="text"/> | VCR Video Cassette Recorder | <input type="text"/> | CD Compact Disc Player | <input type="text"/> |
| DBS Digital Broadcast System | <input type="text"/> | RCVR Receiver or Amplifier | <input type="text"/> | LD Laser Disc Player | <input type="text"/> |
| Other Component | <input type="text"/> | Other Component | <input type="text"/> | Other Component | <input type="text"/> |
| Other Component | <input type="text"/> | Other Component | <input type="text"/> | Other Component | <input type="text"/> |

Codes for VCR

| Brand | Code |
|----------------|------------------------------|
| Admiral | 335 |
| Aiwa | 332 |
| Akai | 314, 315, 316, 329 |
| Audio Dynamic | 311, 339 |
| Bell & Howell | 305, 313 |
| Broksonic | 320, 326 |
| Canon | 323, 325 |
| CCE | 343 |
| Citizen | 306 |
| Craig | 305, 306, 329 |
| Curtis Mathes | 324, 345 |
| Daewoo | 301, 324, 343 |
| DBX | 310, 311, 339 |
| Dimensia | 345 |
| Emerson | 303, 319, 320, 325, 326, 343 |
| Fisher | 305, 307, 308, 309, 313 |
| Funai | 320, 326, 334 |
| GE | 324, 333, 345 |
| Goldstar | 306 |
| Gradiente | 334 |
| Hitachi | 300, 323, 345 |
| Instant Replay | 323, 324 |
| Jensen | 339 |
| JVC | 310, 311, 334, 339 |
| Kenwood | 306, 310, 311, 339 |
| LXI | 300, 305, 306, 307, 308, 309 |
| Magnavox | 323, 324, 331 |
| Marantz | 310, 311, 339 |
| Marta | 306 |
| Memorex | 309, 324 |
| MGA | 338, 340, 341, 347, 348 |
| Minolta | 300, 345 |
| Mitsubishi | 338, 340, 341, 347, 348 |
| Multitech | 304, 347 |
| NEC | 310, 311, 334, 339 |
| Olympic | 323, 324 |

| Brand | Code |
|-----------------|--|
| Optimus | 306, 321, 328, 335 |
| Orion | 320, 326 |
| Panasonic | 321, 322, 323, 324 |
| Penney | 300, 305, 310, 311, 324, 339, 345 |
| Pentax | 300, 311, 345 |
| Philco | 320, 323, 324, 326, 331, 343 |
| Philips | 323, 324, 331 |
| Pioneer | 323 |
| Proscan | 300, 301, 302, 323, 324, 331, 333, 345, 346 |
| Quasar | 321, 322, 323, 324 |
| Radio Shack | 305, 309, 324, 333, 336, 340 |
| RCA | 300, 301, 302, 323, 324, 331, 333, 345, 346 |
| Realistic | 305, 309, 324, 336, 340 |
| Samsung | 302, 304, 333 |
| Sansui | 320, 326, 339, 352 |
| Sanyo | 305, 309, 313 |
| Scott | 301, 302, 304, 309, 320, 326, 338, 340, 347, 348 |
| Sears | 300, 305, 306, 307, 308 |
| Sharp | 335, 336 |
| Shintom | 317 |
| Signature 2000 | 335 |
| Singer | 317 |
| Sony | 328, 329, 330 |
| Sylvania | 323, 324, 331 |
| Tashiro | 306 |
| Tatung | 310, 311, 339 |
| Teac | 310, 311, 339 |
| Technics | 321, 322, 323, 324 |
| Teknika | 324 |
| Toshiba | 301, 346 |
| Vector Research | 311 |
| Wards | 306, 309, 335, 336, 344 |
| Yamaha | 305, 310, 311, 339 |
| Zenith | 306, 344 |

Operating peripheral equipment using the remote control

DVD

Codes for DVD

| Brand | Code |
|------------|------|
| Denon | 100 |
| Ferguson | 101 |
| JVC | 109 |
| Mitsubishi | 105 |
| Nordmende | 101 |
| Panasonic | 100 |
| Philips | 103 |
| Pioneer | 102 |
| RCA | 101 |

| Brand | Code |
|----------|------|
| Saba | 101 |
| Samsung | 110 |
| Sharp | 108 |
| Sony | 104 |
| Technics | 100 |
| Thomson | 101 |
| Toshiba | 103 |
| Yamaha | 100 |
| Zenith | 107 |

DVD

Codes for CD

| Brand | Code |
|---------------|--------------------|
| Admiral | 226 |
| Aiwa | 233, 235 |
| Carver | 229 |
| Denon | 242 |
| Emerson | 239 |
| Fisher | 205 |
| Harman Kardon | 219, 220, 221, 223 |
| Hitachi | 207 |
| Jensen | 234 |
| JVC | 240, 241, 245 |
| Kardon | 223 |
| Kenwood | 200, 201, 211, 245 |
| LXI/Sears | 236 |
| Magnavox | 229, 232 |
| Marantz | 229 |
| McIntosh | 221 |
| Nakamichi | 210 |
| Onkyo | 214, 215 |

| Brand | Code |
|------------|--------------------|
| Optimus | 208, 218, 220, 222 |
| Panasonic | 224, 225, 227 |
| Philips | 229, 230 |
| Pioneer | 208 |
| Quasar | 224, 225, 227 |
| RCA | 231, 237, 238, 247 |
| Sansui | 210, 246 |
| Sanyo | 205 |
| Scott | 210, 246 |
| Sharp | 242, 243 |
| Sherwood | 220 |
| Sony | 228 |
| Soundesign | 244 |
| Teac | 212, 216, 218 |
| Technics | 224, 225, 227 |
| Victor | 240, 241, 245 |
| Yamaha | 202, 203, 204 |

AUX

Codes for Personal Video Recorders

| Brand | Code |
|---------------------|------|
| Panasonic Replay TV | 100 |
| Philips Tivo | 101 |
| Sony Tivo | 102 |

AUX

Codes for Cassette Deck

| Brand | Code |
|-----------|---------------|
| Aiwa | 223, 224, 225 |
| Denon | 231 |
| Fisher | 203 |
| Jensen | 214 |
| JVC | 229, 230 |
| Kenwood | 200, 207 |
| Marantz | 202 |
| Nakamichi | 205 |
| Onkyo | 208, 209, 213 |
| Panasonic | 216, 218 |

| Brand | Code |
|----------|---------------|
| Philips | 222 |
| Pioneer | 204 |
| RCA | 226, 227, 228 |
| Sansui | 205, 210 |
| Sharp | 231 |
| Sony | 219, 220 |
| Teac | 210, 211, 215 |
| Technics | 216, 218 |
| Yamaha | 201, 202 |

Operating peripheral equipment using the remote control

RCVR

Codes for Receivers

| Brand | Code |
|---------------|---------------|
| Admiral | 120 |
| Aiwa | 125, 126 |
| Denon | 134, 135, 136 |
| Fisher | 104 |
| Garrard | 113 |
| Harman Kardon | 115, 123 |
| Jensen | 129 |
| JVC | 132, 133 |
| Kenwood | 100, 108 |
| Magnavox | 127 |
| Marantz | 124 |
| McIntosh | 116 |
| Nakamichi | 106 |
| Onkyo | 109, 114 |

| Brand | Code |
|------------|-------------------------|
| Optimus | 103, 127, 130, 131 |
| Panasonic | 118, 119, 121 |
| Philips | 123 |
| Pioneer | 105, 107 |
| Quasar | 118, 119, 121 |
| RCA | 103, 105, 127, 130, 131 |
| Sansui | 103, 111, 139 |
| Sharp | 134, 137 |
| Sony | 122 |
| Soundesign | 138 |
| Teac | 111, 112, 113 |
| Technics | 118, 119, 121 |
| Victor | 132, 133 |
| Yamaha | 101, 102 |

CBL

Codes for Cable Box

| Brand | Code |
|----------------------------|--|
| ABC | 124 |
| Archer | 125, 132 |
| Cableview | 105, 132 |
| Citizen | 105, 122 |
| Curtis | 112, 113 |
| Diamond | 124, 125, 132 |
| Eagle | 129 |
| Eastern | 134 |
| GC Brand | 105, 132 |
| Gemini | 122 |
| General Instrument/Jerrold | 111, 119, 120, 121, 122, 123, 124, 125, 126, 127 |
| Hamlin | 112, 118, 140, 141, 142, 145 |
| Hitachi | 103, 124 |
| Macom | 103, 104, 105 |
| Magnavox | 133 |
| Memorex | 130 |
| Movietime | 105, 132 |
| Oak | 102, 137, 139 |
| Panasonic | 109, 110, 114 |
| Philips | 106, 107, 128, 129, 130 |
| Pioneer | 101, 116 |
| Pulsar | 105, 132 |

| Brand | Code |
|------------------------|------------------------------|
| Puser | 132 |
| RCA | 115 |
| Realistic | 132 |
| Regal | 112, 118, 140, 141, 142, 145 |
| Regency | 134 |
| Rembrandt | 105, 132, 137 |
| Samsung | 105 |
| Scientific Atlanta | 111, 112, 113 |
| Slmark | 101, 105 |
| Sprucer | 105, 110 |
| Stargate | 105, 132 |
| Tel eview | 101, 105 |
| Texscan | 144 |
| Tocom | 135 |
| Toshiba | 104 |
| Unika | 125, 132 |
| Universal | 122, 132 |
| Videoway | 106 |
| Viewstar | 129, 130 |
| Zenith | 100, 117 |
| Zenith /Drae Satellite | 100 |

DBS


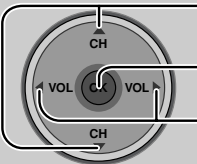







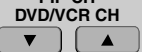
Codes for DBS

| Brand | Code |
|---------------------------|---------------|
| Dish Network | 105, 115, 116 |
| Echo Star (Echostar) | 105 |
| Express VU | 105, 115 |
| G.E. | 106 |
| G.I. (General Instrument) | 108 |
| Gradiente | 114 |
| Hitachi | 103, 111, 112 |
| HNS (Hughes) | 103 |





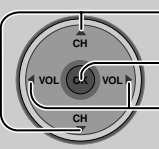



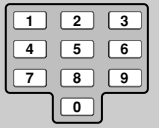










| Brand | Code |
|-------------|--------------------|
| Magnavox | 101, 102 |
| Panasonic | 104 |
| Philips | 101, 102 |
| Primestar | 108 |
| Proscan | 106, 109, 110, 113 |
| RCA | 106, 109, 110, 113 |
| Sony | 107 |
| Star Choice | 103, 108 |
| Toshiba | 100 |
| Uniden | 101, 102 |

Mode Operational Key Chart

This chart defines which keys that are operational after programming (if needed), while in the selected remote control mode, DTV, CABLE, DBS, VCR, DVD ...etc.









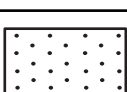













| KEY NAME | DTV MODE | CABLE MODE | DBS MODE |
|---|-------------------------------------|-----------------------|---------------------------|
|  | POWER | POWER | POWER |
|  | NAVIGATION UP/DOWN | CABLE CHANNEL UP/DOWN | DBS NAVIGATION UP/DOWN |
| | OK | — | DBS MENU |
| | NAVIGATION RIGHT/LEFT | — | DBS NAVIGATION RIGHT/LEFT |
|  | DTV MENU | — | — |
|  | PROGRAM INFO. | — | DBS PROGRAM INFO. |
|  | EXIT (EPG)ELECTRONIC PROGRAM GUIDE | — | EXIT DBS MENU |
|  | Select Channel | Select Channel | Select Channel |
|  | PREVIOUS STB CHAN | CABLE PREVIOUS CHAN | DBS PREVIOUS CHAN |
|  | DTV PROGRAM/DASH | — | — |
|  | Info (EPG) ELECTRONIC PROGRAM GUIDE | — | — |
|  | — | — | DBS CHANNEL UP/DOWN |

Operating peripheral equipment using the remote control

| KEY NAME | VCR MODE | DVD/CD MODE (DVD) (CD) | | (PVR) | AUX MODE (VCR2) (TAPE) | | RCVR MODE |
|---|----------------------|---------------------------|---------------------|---------------------------|---------------------------|-------------|---|
|  | POWER | POWER | POWER | POWER | POWER | POWER | POWER |
|  | — | — | — | — | — | — | RCVR MUTE |
|  | TV INPUT SW | — | — | — | TV INPUT SW | — | RCVR INPUT SW |
|  | — | — | — | — | — | — | REMOTE BUTTONS |
|  | — | NAVIGATION UP/DOWN | NEXT/PREVIOUS TRACK | NAVIGATION UP/DOWN | — | — | TUNER +/- |
| | — | — | — | — | — | — | — |
| | — | — | — | NAVIGATION RIGHT/LEFT | — | VOLUME +/- | RCVR VOLUME +/- |
|  | — | — | — | PVR MENU | — | — | — |
|  | ONSCREEN VCR DISPLAY | DVD DISPLAY | TIME FORMAT | — | ONSCREEN VCR DISPLAY | — | — |
|  | — | — | — | EXIT PVR MENU | — | — | — |
|  | — | — | — | Select Channel | — | — | 1.... AV1 2.... AV2 3.... AV3 4.... AV4 5.... CD 6.... TUNER 7.... PHONO 8.... TAPE 9.... AUX |
|  | — | — | — | PREVIOUS CHAN RELAY ZONES | — | DECK A/B | — |
|  | — | — | — | PVR RETURN TO LIVE | — | — | — |
|  | VCR REW/FF | SKIP SEARCH REW/FF | SEARCH REW/FF | — | VCR REW/FF | TAPE REW/FF | SURROUND -/+ |
|  | PLAY | PLAY | PLAY | PLAY | PLAY | PLAY | — |
|  | PAUSE | STILL/PAUSE | PAUSE | PAUSE | PAUSE | PAUSE | — |
|  | STOP | STOP | STOP | — | STOP | STOP | — |
|  | VCR RECORD | — | — | PVR RECORD | VCR RECORD | TAPE RECORD | — |
|  | TV/VCR SWITCH | SLOW +/- | — | — | TV/VCR SWITCH | — | — |
|  | VCR CHANNEL UP/DOWN | — | — | PVR CHANNEL UP/DOWN | VCR CHANNEL UP/DOWN | — | RCVR CENTER +/- |
|  | — | OPEN/CLOSE | OPEN/CLOSE | PVR QUICK SKIP | — | — | — |

Troubleshooting Chart

Before calling for service, determine the symptoms and follow suggested solutions.

| Symptoms | | Solutions | Page |
|--|--|---|---|
| VIDEO | AUDIO | | |
|  Snowy Video |  Noisy Audio | <ul style="list-style-type: none"> Adjust the antenna location and connection. | 12, 13 |
|  Multiple Image |  Noisy Audio | <ul style="list-style-type: none"> Adjust the antenna location and connection. Check the antenna lead-in cable. | 12, 13 12, 13 |
|  Interference |  Noisy Audio | <ul style="list-style-type: none"> Move the television away from electrical appliances, lights, vehicles and medical equipment. | — |
|  Normal Video |  No Audio | <ul style="list-style-type: none"> Increase volume. Check Mute. Check Television Speakers on/off. Change channel. | 23 20 29 23 |
|  No Video with Snow |  Noisy Audio | <ul style="list-style-type: none"> Set Input Setup properly. Check the antenna cables. | 36 12, 13 |
|  No Video / No PIP |  No Audio | <ul style="list-style-type: none"> Check the power cord is plugged into the wall outlet. Adjust Brightness and Audio controls. Change channel. Check the cable connections. Program the remote control code. Check the second video source operation. Make sure that a PC is not connected to HDMI input. Rarely, the TV will not display video in HDMI input from devices with HDMI or DVI output due to bad communication between the TV and the devices. Should this happens, unplug the HDMI/DVI device and plug it back on. | 19 26,28,29 23 12-18 59-61 59-64 14 |
|  No Color |  Normal Audio | <ul style="list-style-type: none"> Adjust Color settings. Change channel. | 26, 27 23 |
|  Digitalization of image Image freeze up |  Audio Break up | <ul style="list-style-type: none"> Re-orient the ATSC antenna. Check signal meter. If the signal is weak, add a signal booster to boost the signal strength. | — 38 |
|  Normal Video |  Wrong Audio | <ul style="list-style-type: none"> Check the audio mode is set to Stereo or Mono, not SAP. Change the audio of the HDMI device to Linear PCM. Check the audio setting for HDMI. If there is functional problem with Digital Audio, use Analog audio. | 21 — 29 |
|  Black Box on Screen |  Normal Audio | <ul style="list-style-type: none"> Change CC (Closed Caption). | 39, 40 |
|  Normal Video |  Normal Audio | <ul style="list-style-type: none"> Replace the remote control batteries. | 9 |
| Intermittent Remote Control Operation | | | |
| Cannot select Antenna B | | <ul style="list-style-type: none"> Perform Auto Scan. | 36 |

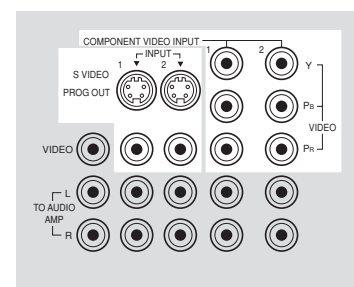
VIDEO input

| | signal name | horizontal frequency(kHz) | vertical frequency(Hz) |
|---|-------------|---------------------------|------------------------|
| 1 | NTSC | 15.73 | 59.94 |

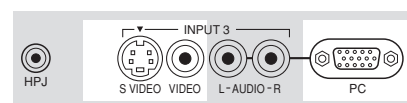
Applicable input signals (* mark)

| | signal name | horizontal frequency(kHz) | vertical frequency(Hz) | COMPONENT | PC | HDMI |
|----|----------------------------|---------------------------|------------------------|-----------|----|------|
| 1 | 525 (480) /60i | 15.73 | 59.94 | * | * | * |
| 2 | 525 (480) /60p | 31.47 | 59.94 | * | * | * |
| 3 | 750 (720) /60p | 45.00 | 60.00 | | * | |
| 4 | 1,125 (1,080) /60i | 33.75 | 59.94 | * | * | * |
| 5 | 640 × 400 @70 | 31.47 | 70.00 | | * | |
| 6 | 640 × 480 @60 | 31.47 | 59.94 | | * | |
| 7 | Macintosh13" (640 × 480) | 35.00 | 66.67 | | * | |
| 8 | 640 × 480 @75 | 37.50 | 75.00 | | * | |
| 9 | 852 × 480 @60 | 31.50 | 60.00 | | * | |
| 10 | 800 × 600 @60 | 37.88 | 60.32 | | * | |
| 11 | 800 × 600 @75 | 46.88 | 75.00 | | * | |
| 12 | 800 × 600 @85 | 53.67 | 85.06 | | * | |
| 13 | Macintosh16" (832 × 624) | 49.73 | 74.55 | | * | |
| 14 | 1,024 × 768 @60 | 48.36 | 60.00 | | * | |
| 15 | 1,024 × 768 @70 | 56.48 | 70.07 | | * | |
| 16 | 1,024 × 768 @75 | 60.02 | 75.03 | | * | |
| 17 | 1,024 × 768 @85 | 68.68 | 85.00 | | * | |
| 18 | Macintosh21" (1,152 × 870) | 68.68 | 75.06 | | * | |
| 19 | 1,280 × 1,024 @60 | 63.98 | 60.02 | | * | |
| 20 | 1,280 × 1,024 @75 | 79.98 | 75.03 | | * | |
| 21 | 1,280 × 1,024 @85 | 91.15 | 85.02 | | * | |
| 22 | 1,600 × 1,200 @60 | 75.00 | 60.00 | | * | |

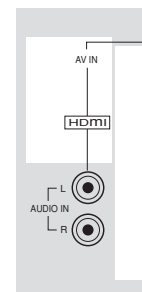
Note: Signals without above specification may not be displayed properly.



VIDEO input
COMPONENT input



VIDEO input
PC RGB input



HDMI input

Specifications

| | | TH-37PD25 | TH-42PD25 |
|-------------------------------------|---------------------|--|---|
| Power Source | | AC 120 V, 50/60 Hz | |
| Power Consumption | | Maximum : 345 W Stand-by condition : 18 W | Maximum : 395 W Stand-by condition : 18 W |
| Plasma Display panel | | Drive method : AC type 37-inch , 16 : 9 aspect ratio | Drive method : AC type 42-inch , 16 : 9 aspect ratio |
| Screen Size | | 32.20 " (818 mm) (W) × 18.15 " (461 mm) (H) × 36.97 " (939 mm) (diagonal) | 36.22 " (920mm) (W) × 20.39 " (518 mm) (H) × 41.57 " (1056 mm) (diagonal) |
| Dimensions (W × H × D) | | 42.13 " (1070 mm) × 23.46 " (596 mm) × 3.90 " (99 mm) | 46.06 " (1170 mm) × 29.91 " (658 mm) × 3.90 " (99 mm) |
| Mass (Weight) | | 67.2 lb. (30.5 kg) Net | 79.4 lb. (36.0 kg) Net |
| Channel Capability-ATSC/NTSC | | VHF/ UHF : 2-69, CATV:1-136 | |
| Sound | Speaker | Woofer ϕ 1.57 " (40 mm) × 8 , Tweeter ϕ 1.38 " (35 mm) × 2 | |
| | Audio Output | 16 W [8 W + 8 W] (10 % THD) | |
| | Headphone | M3 (3.5 mm) Jack × 1 | |
| FEATURES | | Two screen display fuctions BBE VIVA 3D CLOSED CAPTION | 3D Y/C FILTER LINEAR PIP V-Chip HDMI JPEG Viewer |
| Accessories Supplied | | Remote control: EUR7627Z10 AA Battery × 2 AC Cord Pedestal Fixing band | Ferrite cores : large × 4, small × 6 F-type antenna adapter (3C-2V × 2, 5C-2V × 2) |
| Operating Conditions | | Temperature : 34 °F - 104 °F (0 ° – 40 °C) Humidity : 20 % - 80 % (non-condensing) | |
| Connection Terminals | | RGB input AV INPUT 1- 3 AV PROG. OUT TO AUDIO AMP COMPONENT VIDEO INPUT1-2 HDMI DIGITAL AUDIO OUT | D-SUB 15pin VIDEO (Phono Jack Type) S-VIDEO (Mini DIN 4-pin) AUDIO L-R (Phono Jack Type × 2) VIDEO (Phono Jack Type) AUDIO L-R (Phono Jack Type × 2) AUDIO L-R (Phono Jack Type × 2) Y P _B / P _R AUDIO L-R (Phono Jack Type × 2) HDMI type A Connector AUDIO L-R (Phono Jack Type × 2) PCM / Dolby Digital, Fiber Optic |
| | | R,G,B / 0.7 Vp-p (75 Ω) HD, VD / 1.0 - 5.0 Vp-p (high impedance) 1.0 Vp-p (75 Ω) Y : 1.0 Vp-p (75 Ω), C : 0.286 Vp-p (75 Ω) 0.5 Vrms 1.0 Vp-p (75 Ω) 0.5 Vrms 0.5 Vrms 1.0 Vp-p (including synchronization) ± 0.35 Vp-p 0.5 Vrms 0.5 Vrms | |

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